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Academic Integrity: A Study of Attitudes and Behaviors focused on Technology & Narcissism

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Academic Integrity: A Study of Attitudes and Behaviors focused on Technology & Narcissism

By

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ABSTRACT

This thesis focuses primarily on the misuses of technology in regards to academic integrity violations and examines some of the psychological traits that are more likely to lead these violations. It begins by defining Narcissism, and then analyzes its effect on cheating frequencies and attitudes. The next portion focuses on the relationship between the misuse of technology and narcissism. Finally, technological cheating methods are examined; survey results are compared with UA academic integrity case records to find areas in which violations most often occur.

There were two main hypotheses at the outset of the research. The first hypothesis was that cheating would be severely underrepresented in the university records in comparison to the rates at which students admitted to using them. This would show that current academic integrity prevention and detection methods are doing a poor job at detecting and preventing cheating.

The second hypothesis was that narcissism would have a strong correlation with cheating. Narcissism was chosen because many studies have shown that narcissism has increased significantly in the millennial generation and that a high level of narcissism can be linked to many detrimental behaviors. [1][2]

To examine these hypotheses, surveys were administered to undergraduates in the Walton College of Business and freshmen in the Engineering College. These surveys included a personality test for narcissism and a questionnaire about attitudes and behaviors related to cheating. university records were then gathered, scrubbed of identifying information, and compared to the survey results.

INTRODUCTION

In an age where data is quite literally at people's fingertips and a new phone released by a guy in a turtleneck can strike awe into the masses, it's easy to see that technology has managed to integrate into almost every aspect of our lives. It's naïve and irresponsible, however, to think that these advances only bring out the best in society. It's always been fascinating to see how long it takes before these breakthroughs lead to entirely unthought-of consequences.

As everyone knows, the internet as a whole is an unbelievable tool and one of the biggest revolutions in free flow of information across the globe. In future years it will be an even more prominent tool. With cloud computing picking up steam, a network connection could end up being far more important than hardware. Couple this with the increased speeds in mobile devices and well, let's just say the future looks bright.

Unfortunately, the internet can also be attributed to a massive increase in many unethical behaviors as well. Hacking is one of the main reasons that security has become such a big focus in recent years [3][4][5]. A major finding recently has shown that China has been on the forefront of many cyber-attacks; Chinese firms have been stealing proprietary information from US companies at an alarming rate. It's at such a large scale, that Bloomberg Business Week called it the "greatest transfer of wealth in history" [6]. With so much sensitive data being held electronically, one can only expect hackers to continue their efforts and for the security field to continue growth.

Piracy is another huge concern and has become a poster child of unethical behavior. Today it remains a prominent topic and is at the center of heated debates about freedom of information, privacy, and censorship [7][8]. Though hacking and piracy garner a lot of attention in

the media and judicial system, an often overlooked misuse of technology is cheating in higher educational institutions.

Even though academic cheating is not an existential threat at the level of sabotage, espionage, or fraud the history of cheating is as long and has also adapted to technology. Today educational institutions are often poorly equipped to find, report, and prove digital academic integrity violations. There are plenty of ways to detect plagiarism, but even with these methods, students are beginning to find ways around them [9]. Cheating will always be present regardless of the measures put in place to prevent it, but to ignore that students are shifting from traditional forms to newer (often anonymous) forms of cheating and distribution is unacceptable.

This thesis focuses primarily on the misuses of technology in regards to academic integrity violations and examines some of the psychological traits that are more likely to lead these violations. It begins by defining Narcissism, and then analyzes the effect on cheating frequencies and attitudes. The next portion focuses on the relationship between the misuse of technology and narcissism. Finally, technological cheating methods are examined; survey results are compared with university records to find areas in which violations most often occur and then discusses potential reasons for discrepancies.

WHAT IS NARCISISSM

Narcissism can be broken down into two categories. The more detrimental form of narcissism is Narcissistic Personality Disorder (NPD). It is defined as: "a mental illness primarily characterized by extreme focus on oneself, and is a maladaptive, rigid, and persistent condition that may cause significant distress and functional impairment" and can have serious symptoms [10]. The other form of narcissism is something that everyone possesses to some degree. To put it simply, it's the egocentric, selfish part of your personality. Narcissism sounds

bad, but some of the traits used to measure narcissism can be important for forming a healthy feeling of self-worth [11].

There have been many studies coming out recently that revolve around both forms of narcissism and the younger generations. One study suggests that narcissism has been rising over time and that the millennial generation is rampant with narcissists, but debate about the subject remains rampant [2][11]. The debate is in part fueled by the most common form of testing for narcissism: the Narcissistic Personality Index (NPI). The NPI doesn't necessarily test for Narcissistic Personality Disorder, though clearly if one scores very high on the NPI, the chance of having pathological narcissism increases substantially. The question is, "where does healthy self-esteem end and pathological narcissism, something that leads to selfishness, manipulativeness, and violence, begin?" [11]

While this debate is interesting, the relationship between the narcissistic personality inventory and pathological narcissism is not of particular relevance to this thesis. If one scores higher on the NPI and is more likely to cheat as a result, the psychological elements pertaining to this study are captured. This being the case, the NPI-16 was the survey chosen to measure narcissism in this study [12].

It's important to note that the NPI-16 derives its validity from the NPI-40[13] and measures several different personality dimensions of narcissism. They are: exploitativeness, entitlement, exhibitionism, authority, self-sufficiency, and superiority. Exploitativeness, entitlement, and exhibitionism are three dimensions that could be expected to be positively correlated with cheating. Authority and Self-sufficiency, however, aren't generally seen as negative traits. It's possible that one could even see "good" behaviors correlated with higher scores in these two dimensions. The last dimension measured is superiority. Based on the

questions related to this dimension in the NPI-16, it could be seen as either a positive or negative dimension [14]. "I know that I'm good because everyone keeps telling me so." is one question from this dimension that hints at an inflated view of self-worth and need for others' approval. The other two questions, however, could be taken as measuring someone's sense of individuality. The questions ask whether someone feels "special" or "extraordinary". In the next section, these dimensions will be separated out and analyzed individually. The positive dimensions will be analyzed first, the negative dimensions second, and finally superiority, the neutral dimension, will be analyzed.

NARCISSISM'S EFFECT ON CHEATING

Here the NPI-16 is broken down in multiple ways and related to cheating percentages, frequencies, and attitudes. Separating the data based on each dimension is the first way in which the survey will be analyzed. The first two dimensions analyzed are the positive dimensions: authority and self-sufficiency.

AUTHORITY DIMENSION

The first dimension analyzed is authority. Someone with a high score in this dimension "thinks of himself as a good leader" [14]. Figure 1[15] compares the average percentage of people that have cheated in various ways and relates it to authority. The "Technology" value on the x-axis indicates that the person has used technology in the past to cheat.
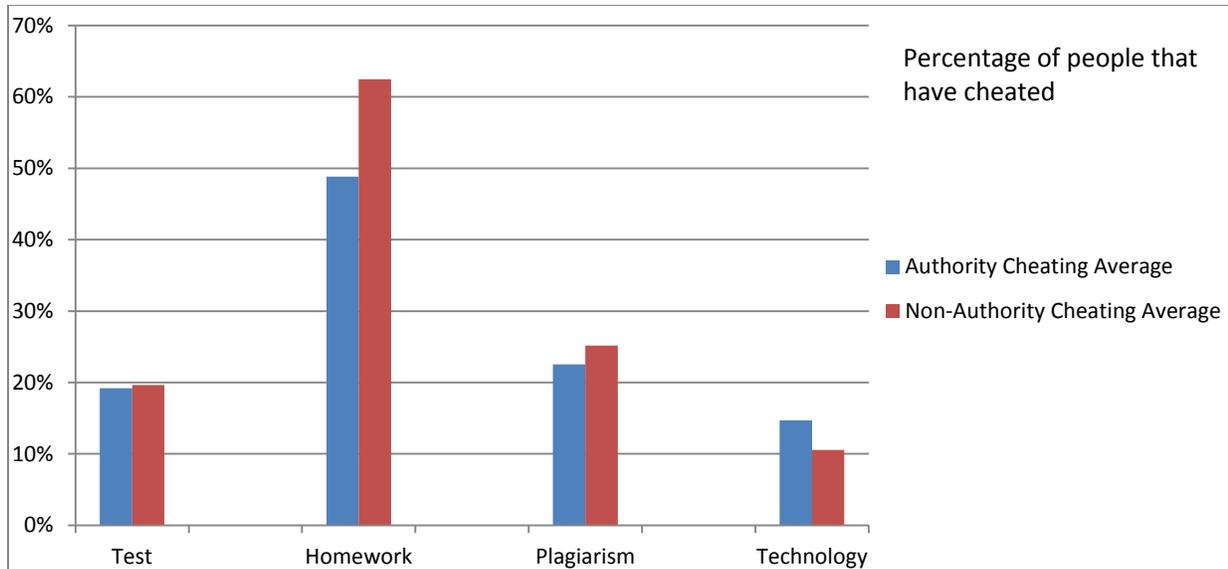

Figure 1

The analysis shows no real correlation between cheating and the authority dimension as a whole. In three of these cases, the participants who scored highly in this dimension, were actually less likely to cheat. This is consistent with the thinking that authority isn't a negative dimension of narcissism.

SELF-SUFFICIENCY DIMENSION

       The second dimension analyzed is Self-Sufficiency. Someone with a high score in this dimension "likes to take responsibility for his or her decisions" [14]. Figure 2 compares the average percentage of people that have cheated in various ways and relates it to self-sufficiency. This is the last positive dimension of narcissism, and the analysis yields results very similar to Authority's.

Figure 2

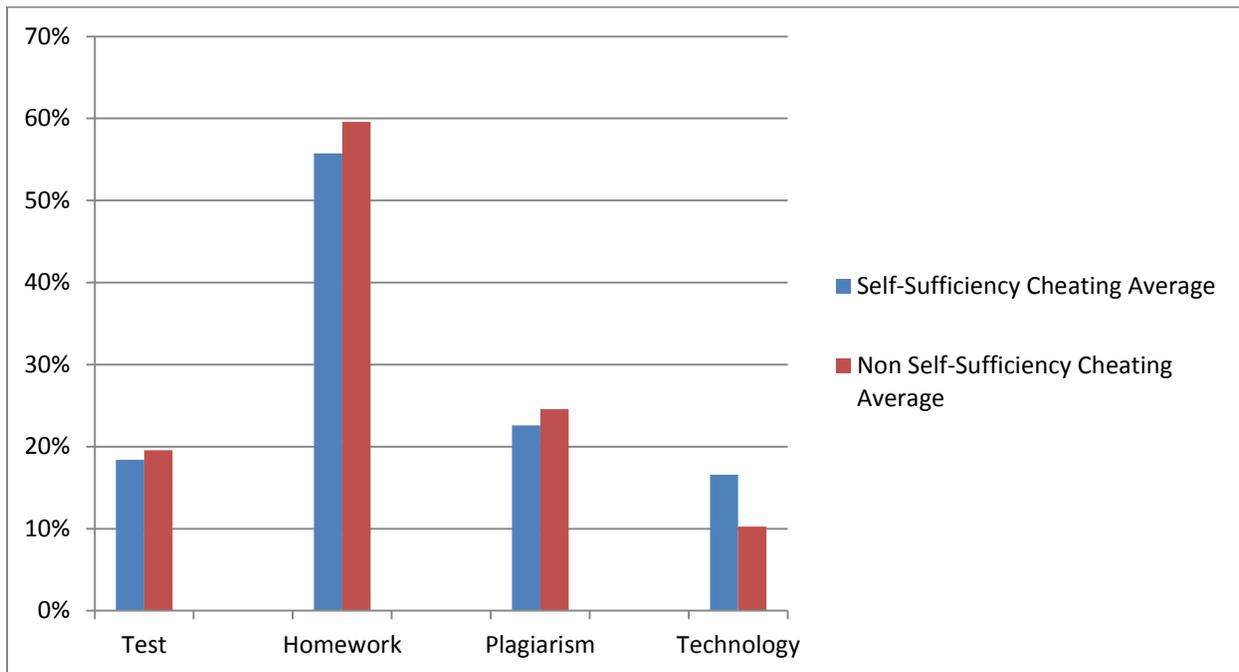   The analysis shows no real correlation between cheating and the self-sufficiency dimension. In the same three forms (Test, Homework, and Plagiarism) there is actually a decrease in cheating percentages for those that scored highly in self-sufficiency. This confirms in part that self-sufficiency is a positive dimension of narcissism. Curiously, technology based violations again seem to be increased.

EXPLOITATIVENESS DIMENSION

The next three dimensions analyzed are negative dimensions of narcissism. They are: exploitativeness, entitlement, and exhibitionism. One would expect cheating in all forms to be positively correlated with these dimensions. The first negative dimension is exploitativeness. Someone who scores high in this dimension "finds it easy to manipulate people" [14]. Figure 3 compares the average percentage of people that have cheated in various ways and relates it to exploitativeness
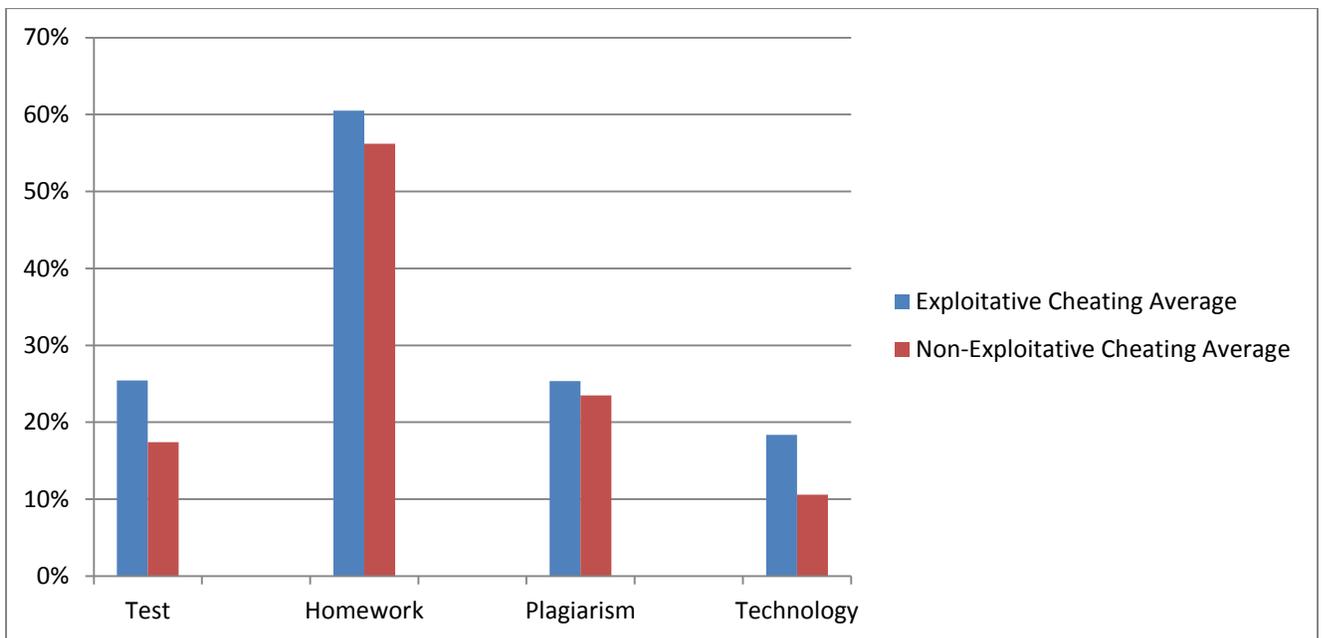

Figure 3

This analysis is consistent with the idea that exploitativeness is a negative dimension of narcissism. Technological and test violations saw the biggest increase, but there was an increased percentage of cheating in all forms. It's worth noting that violations involving technology have correlated with each dimension so far.

ENTITLEMENT DIMENSION

The second negative dimension analyzed is entitlement. Someone who scores high in this dimension "insists on getting the respect that is due to him and has a desire to be seen as more important than others." [14] Figure 4 compares the average percentage of people that have cheated in various ways and relates it to entitlement.

Figure 4

The analysis gives some surprising results. It looks very similar to the positive dimensions of narcissism that were analyzed first. Like in the authority, and self-sufficiency dimensions, cheating involving technology is the only form that is positively correlated with entitlement. It doubles from 10% to 20%. This is clearly inconsistent with the theory that entitlement is a negative dimension of narcissism when related to cheating as a whole.

EXHIBITIONISM DIMENSION

The last negative dimension of narcissism is exhibitionism. This dimension is of particular interest because it's been studied in the past and has shown a relation to cheating [16]. Exhibitionism is defined as "the need to receive attention and praise from others". [14] Figure 5 compares the average percentage of people that have cheated in various ways and relates it to exhibitionism.
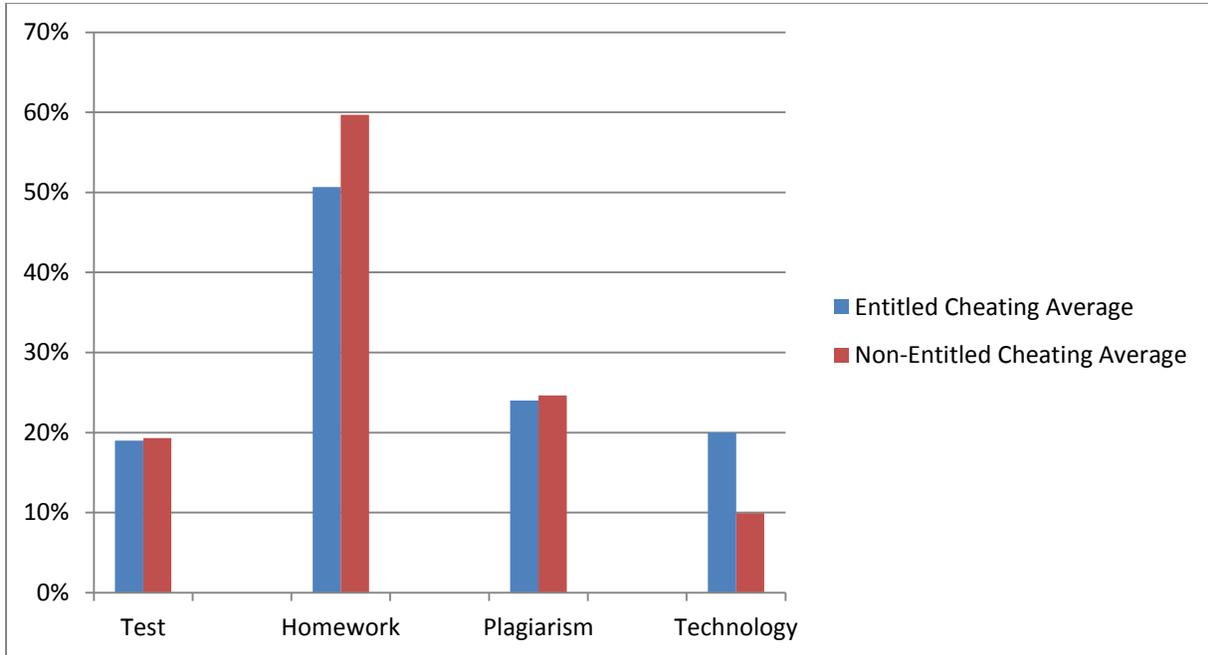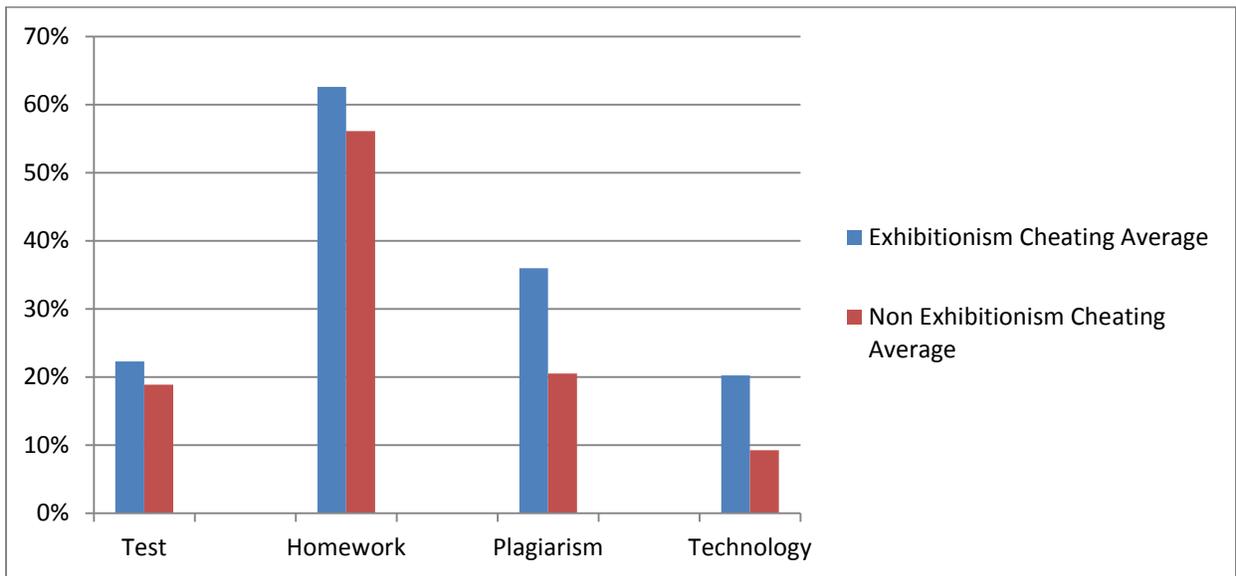

Figure 5

This analysis confirms the correlation found between exhibitionism and higher levels of cheating. There was an increased percentage in all forms of cheating for those that display exhibitionism. In fact technological violations and plagiarism have a higher percentage of violations for those displaying this dimension than any of the others.

SUPERIORITY DIMENSION

The superiority dimension doesn't fit neatly into a positive or negative dimension of narcissism. As mentioned in the section above, the question related to superiority could show that someone has a very inflated view of self-worth or it could show that they have a prominent sense of individuality. Figure 6 compares the average percentage of people that have cheated in various ways and relates it to superiority.
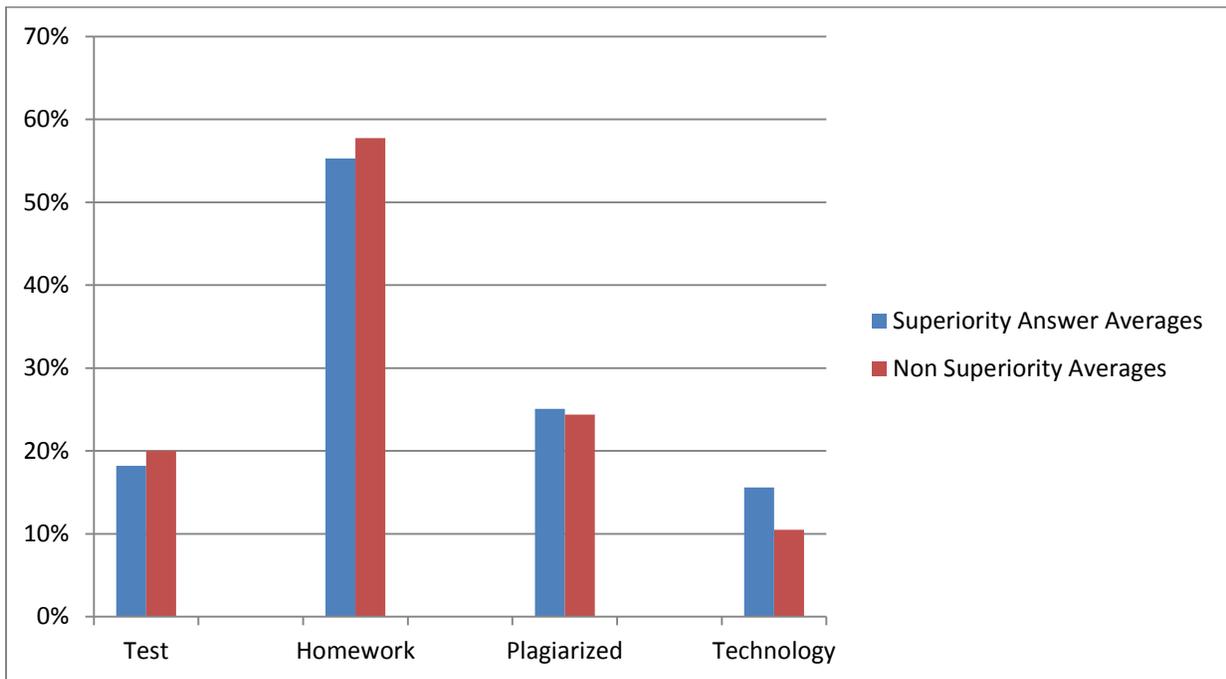

Figure 6

The analysis actually fits well with this dimension. The results are mixed just like the dimension itself. Both plagiarism and technological base cheating saw an increase for those that scored high in superiority. Homework and test cheating percentages, however, were lower.

Conclusions from Dimension Analysis:

After looking at every dimension individually, there are a few important results to pay attention to. The first one is that technological cheating percentages increased in every single dimension. It didn't matter whether the dimension was positive, negative, or mixed. This being the case, one can expect that those with a high composite narcissism score will be significantly more likely to cheat using technology. This will be tested in the next analysis.

Let's examine a possible reason for such a strong link between narcissism and technological cheating. In the past several studies have been done on the effects of social media and mobile technology on narcissism [17][18][19]. These studies primarily refer to social media and mobile technology as enablers of narcissistic behaviors. Using technology as a form of cheating may just be an effect of narcissists being very comfortable with newer technology.

Take a look at Facebook for example. One can sign up in minutes, gather an audience, and then announce their accomplishments with the click of a button. With mobile technology, this type of interaction never stops. Text messaging, mobile applications and internet-access can construct an environment that completely revolves around someone and their interests. This is a narcissist's dream.

Once narcissists make the association that technology is a primary way of receiving recognition, it may become the preferred method of doing many other things. In Academic Integrity cases, cheating by technological means is often easier than traditional means. If a teacher uses the same test repeatedly, it wouldn't be hard for someone to take a picture with their phone and distribute it to other students. For a narcissist, this could provide a great deal of recognition from their peers.

The second conclusion to draw from the dimension analysis is that narcissism as a whole may not be the best indicator for all academic integrity violations. In several of the dimensions there was actually a negative correlation with all forms of cheating other than violations involving technology. This will be tested in the next analysis.

COMPOSITE NPI ANALYSIS

In this section, composite NPI scores will be examined in relation to technological cheating and then cheating as a whole. The composite NPI score is the result from the NPI-16 that was administered to undergraduate students in the business college. This study breaks the scores down into three categories. The students that scored ten or above were placed in the high narcissism category. Those that scored between nine and four were placed in the mid-range. Those that scored three or below were placed in the low narcissism category. The results are shown below in Figure 7.

Average Technological Cheating Percentage
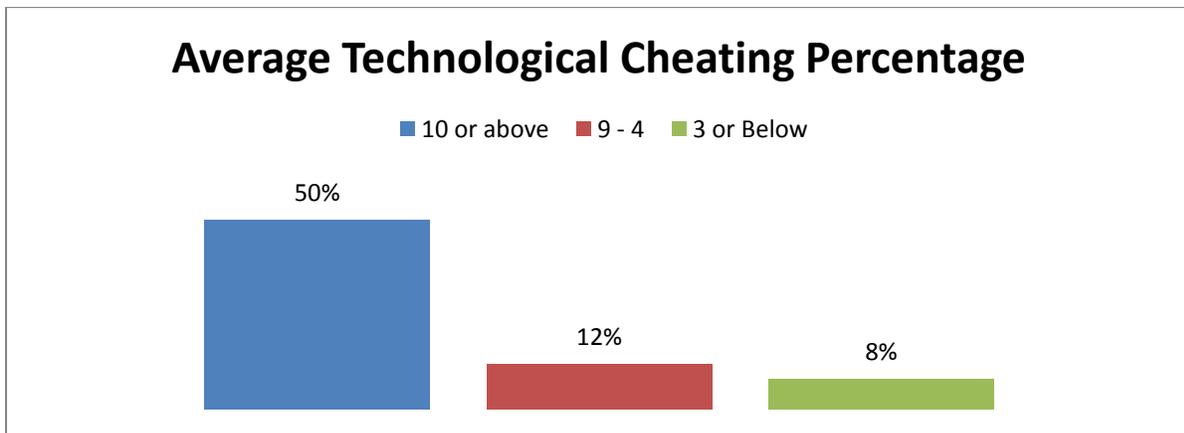
■ 10 or above ■ 9 - 4 ■ 3 or Below

50%

12%

8%

Figure 7

The average across all scores was 13%. This matches well with all three categories. The mid-range very close at a 12% average and the low-end at 8% is slightly below the average. The result of interest, however, is the high range of narcissism. The chance of technological

cheating quadruples for those score ten or above.   This confirms that the NPI-16 can in part

predict the likelihood of a person cheating with technology.

The next composite analysis looks at the NPI score in relation to all other forms of

cheating. The scores will remain the same for high, mid, and low levels of narcissism. The

results are show below in Figure 8.
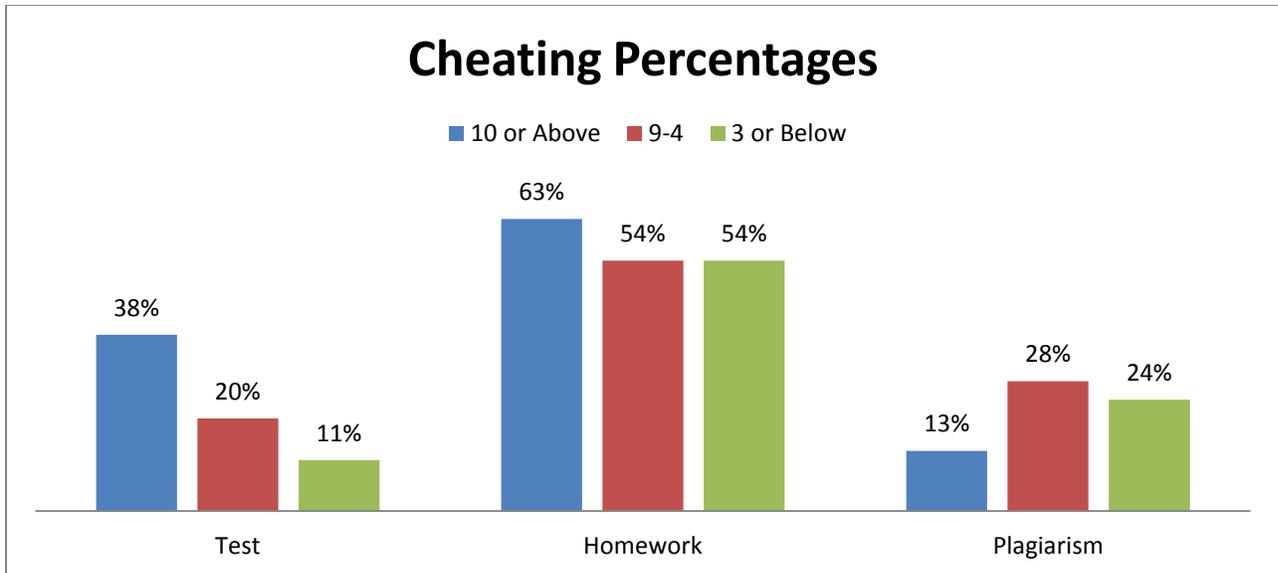
Figure 8

These results show mixed effectiveness at linking NPI score to other cheating

percentages. Test cheating percentages correlate well and homework percentages had a jump in

high narcissism scores, but plagiarism has no real correlation. A correlation test was also done

on technological cheating since it had the biggest percent change with high narcissism scores. It

compared those with high levels of narcissism and those with low levels of narcissism. Mid-

range levels of narcissism were left out because there was too much variance. The coefficient

found was .377. These results show that while narcissism can be linked with some forms of

cheating, it is best to separate out the forms. There are different motivations behind cheating and

blanketing narcissism as a related factor to all forms is inaccurate.

ATTITUDE ANALYSIS

In this section we will examine attitudes of students in relation to NPI score. Attitudes are often related to behavior and have predictive value. This section will examine the relationship between attitudes and the behaviors found in the previous section.

The questions measuring attitudes used a scale from one to seven asking participants to rate the severity of different violations based on different criteria. The criteria for each violation type were: Harmful to Beneficial, Favorable to Unfavorable, Foolish to Wise, and Good to Bad. These scores were averaged for each set of NPI scores and then combined to form a Positive to Negative score on the same scale. A score of one is the most positive attitude towards a type of violation and seven is the most negative attitude. This aggregate attitude score will be used in the analysis.

The first violation examined is homework. The average attitude score towards homework all narcissism categories is 5.17. Since four is considered neutral, this score is a slightly negative attitude. It says that while students disapprove of homework violations, the offense is considered rather mild. When looking at the other violations in this section, one can see that this is the lowest average score across all NPIs of any violation. This helps explain why the homework cheating percentages were higher than any other. The attitude scores divided out among those with high, mid-range, and low levels of narcissism are 4.96, 5.28, and 5.26 respectively. The score of 4.96 among those with a high level of narcissism is the lowest score in this section. It says that people with high narcissism almost consider these violations as neither a good or bad thing.

The mid-range and low narcissism scores of 5.28 and 5.26 are almost identical in attitude score and align well with the behaviors shown in the section above. The behaviors (shown in the

16

section above) show that cheating percentages for both groups is identical at 54% reporting that they have cheated in the past on homework. The attitude score of 4.96 for those with high levels of narcissism also fits well with the behavioral data. It's an almost neutral attitude towards homework violations and the 63% cheating percentage reflects that.

The next violation type examined is technological cheating. The average attitude towards technological cheating was 5.76. This score indicates that participants had a more negative attitude towards this type of violation than homework violations. The attitude scores broken down for high, mid-range, and low narcissism are 5.58, 5.6, and 6.07 respectively. The score of 6.07 shows that participants with low levels of narcissism find technological cheating as a very serious offense. It is the highest score in this section. The other groupings showed more disapproval as well in comparison to homework violations. These attitudes coupled with a lack of confidence or knowledge about using technology in an unethical manner may explain why only 13% of students said they had cheated using technology.

When looking at behavior, participants with high levels of narcissism had a gigantic increase in actual cheating percentages as compared to those with mid-range and low levels of narcissism. The attitude scores between the groups don't reflect the same jump though. While it does follow the same basic correlation found in the composite analysis, one would expect a bigger jump between low level and mid-range based on the attitudes. This result shows that there may be other factors involved such as familiarity with technology, narcissism, and immersion in technology.

The last violation type examined is plagiarism, and the average attitude score was 5.85. This shows that across the board, people see this as a serious offense. One would expect that plagiarism, therefore, would have the lowest percentage of cheating associated with it, but this is

not the case. Separating out the data based on NPI scores gives a bit more clarity, but shows the predictive value of attitudes to be inconclusive at best.

The attitude scores for high, mid-range, and low levels narcissism were 5.83, 5.7, and 6, respectively. Ranking the violation types analyzed in order of severity, narcissists rated this as the most serious. The percentage reflects that. They had significantly less violations in this category than any other. The same can be said for those categorized with low levels of narcissism. They rated this in between technological cheating and homework violations in terms of severity, and the percentage again reflects that. If the data is analyzed as it was in the other two types, however, only mid-range has any validity.

No analysis was done based on the severity rankings of each type for every narcissism group. In the homework and technology analysis, the comparison was only between attitudes and behaviors of the same type. Using this method, those in the mid-range of NPI scores rated this violation type at 5.7. This is a less negative attitude than those with high and low levels of narcissism. Their cheating percentages demonstrate this and are the highest at 28%. Since those with low NPIs rated it as 6, one would expect them to have a lower percentage of violations than those with high NPIs, but this is not the case.

Since there seems to be limited validity in most cases when taking attitudes into account, it may be best to use this measure of attitudes as a predictor of behavior only when all else is equal. This section should show that an NPI score alone is not sufficient for categorizing people in this way. To separate people out into equal groups, it would probably be best to use multiple demographic categories along with other metrics.

SURVEY AND UA ACADEMIC INTEGRITY CASE COMPARISON

In this section, the results of the survey are compared to university records collected from the provost office. The anonymity of these records was of the highest priority and the academic integrity cases used for comparison in this study had all identifying information removed. No names, email addresses, or case details were provided.

The initial hypothesis for this analysis was that cheating would be severely underrepresented in the university records in comparison to the rates at which students admitted to using them. This would show that current academic integrity prevention and detection methods are doing a poor job at detecting and preventing cheating.

The first step in proving this hypothesis is breaking down the university records by violation type. Figure 9 does this and shows the number of each violation over the last few years.

Provost Record Cheating Frequencies

■ Provost Record Cheating Frequencies

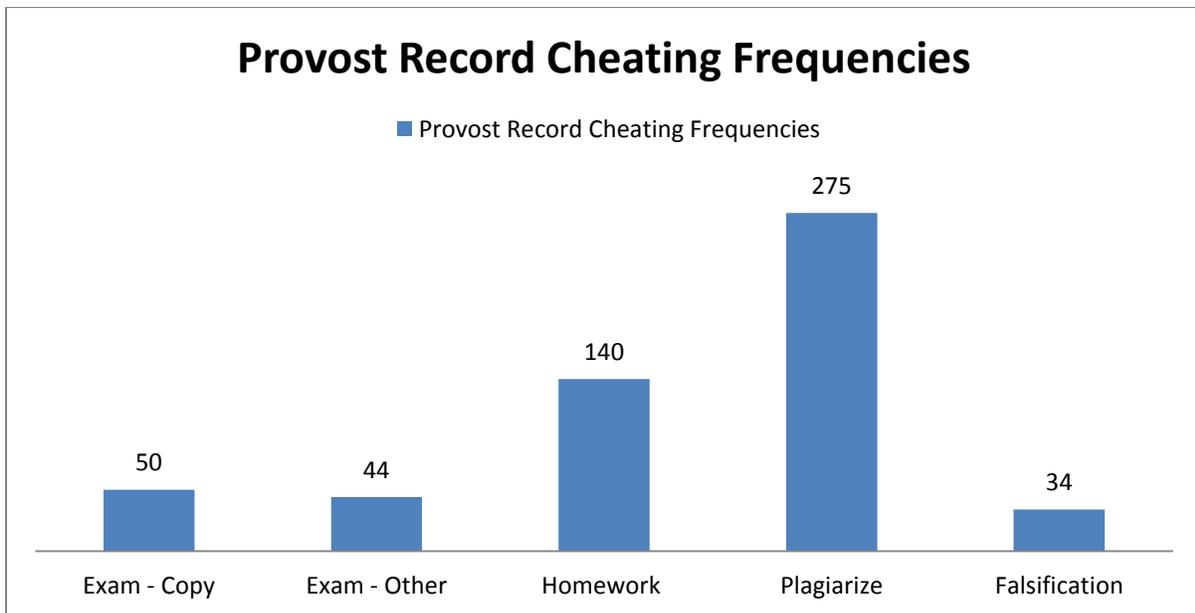| Exam - Copy	Exam - Other	Homework	Plagiarize	Falsification
50	44	140	275	34

Figure 9

Immediately, plagiarism stands out as violation that gets caught the most. It has nearly two times as many violations as the second biggest offender. This should come as no surprise to

those familiar with plagiarism checkers. All a professor has to do is submit a student's paper to one of these programs, and it is checked against a plethora of past papers and sources on the internet. A further analysis reveals that almost 100 of these violations are committed in 1000 level English courses. It could be that many freshmen are unaware that these tools exist and had success plagiarizing in high school.

The violation that has the second most violations is copying/collaborating on homework. This also comes as no surprise as over 50% of students admitted to cheating on homework at one point in time. Since these records span several years and many students have probably cheated on homework more than once in their academic career, it's safe to say that these violations get caught around 1% of the time or less. Unfortunately this finding is expected. Homework violations will always be hard to detect, and there's no easy way to cut down on it. A question on the survey highlights a 77% of participants in the survey said that they felt cheating on an individual homework assignment isn't wrong if they're helping someone grasp the material. This is a telling statistic about the mindset of most college students.

Testing violations had a fairly high count at around 100 if all the different forms are combined.   This number was more than expected. In the survey about 20% admitted to cheating on a test or exam in the past. This is a slightly lower percentage than the 24% that admitted to plagiarizing. Plagiarism is the easiest way to get caught cheating, and tests happen far less frequently than homework assignments. It wouldn't have been surprising if the count was much less than 100.

Technological violations require a different look at the data. The graph for this analysis is shown below in figure 10.
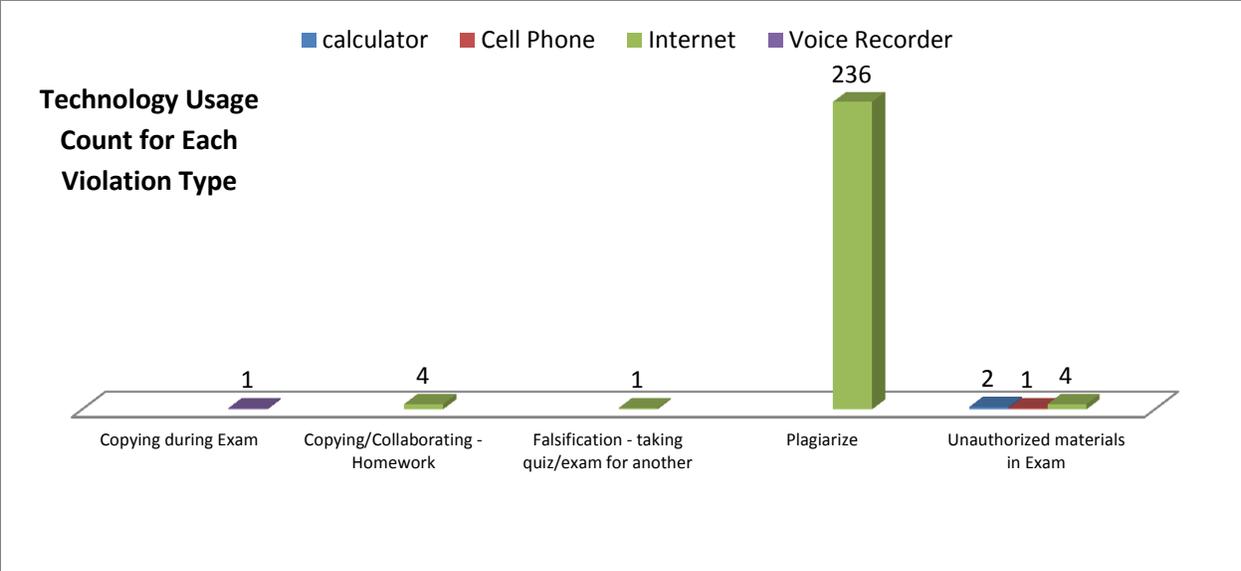
Figure 10

The breakdown of technological cheating violations is a bit surprising. The high count in plagiarism was expected. A further analysis shows that 96% of all plagiarism violations involve the internet. With information available in seconds on the internet, it makes sense that students would choose the internet as their preferred method. Such low counts everywhere else are surprising though. It could be a sign of the anonymity that comes with using technology as a cheating method. Survey data seems to agree with this. 59% of students agreed that "Technology has enabled people to cheat without fear of getting caught."[20] In every category besides plagiarism, this seems to be the case. For this reason, it could be argued that cheating using technology is severely understated in the university records even though it makes up the vast majority of plagiarism violations. A closer look at some other questions on the survey assists in backing this claim.

Though only 13% of students said they had cheated using technology, several other questions on the survey tell a different story. 60% of participants felt that "cheating using some form of technology is the most common way for a student to commit an academic integrity

violation." If this opinion reflects what is happening with any accuracy, one could assume that the 13% that admitted to cheating using technology is understated. There are two additional statistics that strengthen this claim. 65% of participants admitted to "using email, phone, or another form of technology to help another on an individual assignment."[20] And 52% admitted to "emailing class material from a previous semester to someone currently enrolled in the course."[20]

It's possible that many students feel that 'helping' others in this way isn't a form of cheating. In their mind, it could be that they're 'tutoring' other students by helping them with assignments and simply giving study materials to friends in courses they've already taken. This again fits well with the fact that 77% felt that cheating isn't wrong if they're helping another grasp material on an individual assignment isn't wrong.

It's attitudes like this that make fighting many academic integrity violations an uphill battle. Technology has proven to have a role in both preventing and enabling cheating. With or without technology, though, low level academic integrity violations will remain rampant and all violations will remain difficult to detect and prove until either policies change or students change.

CONCLUSIONS

In this thesis, narcissism has been related to cheating in several ways, and a correlation coefficient of .377 was found for the relationship between composite NPI scores and technological cheating percentages. This proves the hypothesis that narcissism could be linked to cheating is true in some regards. Looking at narcissism in terms of its dimensions gave a good look at behavior patterns for different types of people as well. Combining all of this information with the question by question analysis located in the appendix could lead to some interesting surveys in the future that might have predictive value.

Attitudes were also examined with regards to different cheating violations and NPI. These results were inconclusive at best. NPI alone was insufficient in most cases as a grouping measure for attitude analysis. Using NPI in conjunction with other factors such as demographic information, however, may provide better results in the future studies.

Finally university records were compared to survey results. Formal charges for all forms of cheating were underrepresented when compared to self-reporting, and possible reasons for this were given. For technological cheating, plagiarism was the only violation type that consistently detected its use. 96% of plagiarism violations involved the internet. While this is a sign that plagiarism checkers do their job well, the lack of technology cheating detected in other types of violations is worrying.

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15. Figure 1 explained: If 16% of people that answered "I like having authority over people" cheated on a test and 18% of people that answered "People always seem to recognize my authority" cheated on a test, the authority answer average for Test would be 17%.   The same average is taken for the non-authority responses and compared. The same logic was used for figures 2-6.

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Appendix:

Technological cheating percentages for each NPI score.

Technological Cheating percentage

Score	Percentage
14	50%
12	50%
11	0%
10	100%
9	13%
8	0%
7	18%
6	18%
5	25%
4	0%
3	0%
2	18%
1	8%
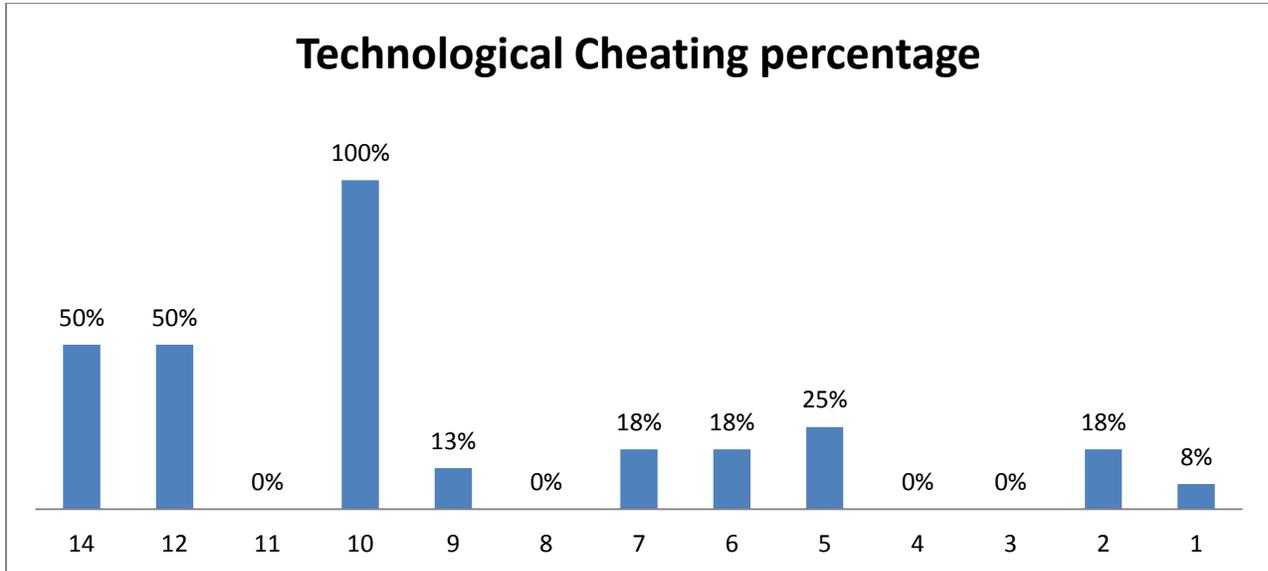
Individual NPI-16 Question Analysis Related to Cheating Percentages:

Authority Relations with Cheating: Top question is authoritative answer				
	Test	HW	Plag	Tech
I like having authority over other people	21%	52%	19%	12%
I don't mind following orders	18.50%	60%	27%	12%
People always seem to recognize my authority	17%	46%	26%	17%
Being an authority doesn't mean that much to me	21%	65%	23%	9%

Superiority Relations with Cheating: top question is superiority answer

	Test	HW	Plag	Tech
I think I'm a special person	14%	43%	29%	14%
I am no better or no worse than most people	21%	62%	23%	12%
I know I'm good because everyone keeps telling me so	24%	61%	24%	16%
When people compliment me, I sometimes get embarrassed	18%	56%	25%	11%
I'm an extraordinary person	17%	63%	23%	17%
I am much like everybody else	21%	55%	25%	9%

Using technology to cheat seems to be sllightly more prevelant in those that display superiority

Exploitativeness Relations with Cheating: Top question is the exloitativeness response

	Test	HW	plag	Tech
Everybody likes to hear my stories	20%	53%	20%	20%
Sometimes I tell good stories	19%	58%	25%	11%
I can make anybody believe anything I want them to	21%	60%	27%	13%
People sometimes believe what I tell them	19%	56%	23%	12%
I find it easy to manipulate people	35%	68%	29%	23%
I don't like it when I find myself manipulating people	14%	54%	23%	9%

The Manipulation question has some interesting results: Far above average for test violations and tech.

Entitlement Relations with Cheating: Top question is the entitlement response

	Test	HW	Plag	Tech
I insist up getting the respect that I deserve	8%	48%	28%	20%
I usually get the respect that I deserve	22%	60%	23%	10%
I expect a great deal from other people	30%	53%	20%	20%
I like to do things for other people	16%	59%	26%	10%

Technology again seems above average for the narcissistic answers. Test percentages are a mixed bag.

Self-Sufficiency Relations with Cheating: Top question is Self-Sufficient Response

	Test	HW	Plag	Tech
I am going to be a great person	21%	53%	26%	14%
I hope I'm going to be successful	18%	62%	23%	11%
I'm more capable than other people	16%	58%	19%	19%
There is a lot I can learn from other people	21%	58%	26%	10%

Exhibitionism Relations with Cheating: Top question is Exhibition response

	Test	HW	Plag	Tech
I really like to be the center of attention	19%	60%	33%	19%
It really makes me uncomfortable to b the ctr of attntn	20%	57%	20%	9%
I like to be the center of attention	23%	66%	37%	23%
I like to blend in with the crowd	18%	55%	19%	8%
I am apt to show off if I get the chance	25%	63%	38%	19%
I try not to be a show off	19%	57%	22%	11%

Other findings:

Honors Cheating Percentages

Legend: ■ Honors ■ Non Honors

	Test	HW	Plag	Piracy	Tech
Honors	13%	49%	22%	29%	11%
Non Honors	25%	65%	26%	32%	13%

Honors Cheating Frequencies

Frequency (Higher = Less Frequent)

	Test	HW	Plag	Piracy	Tech
Honors	6.87	6	6.45	5.96	6.53
Non Honors	6.79	5.96	6.49	6.09	6.69
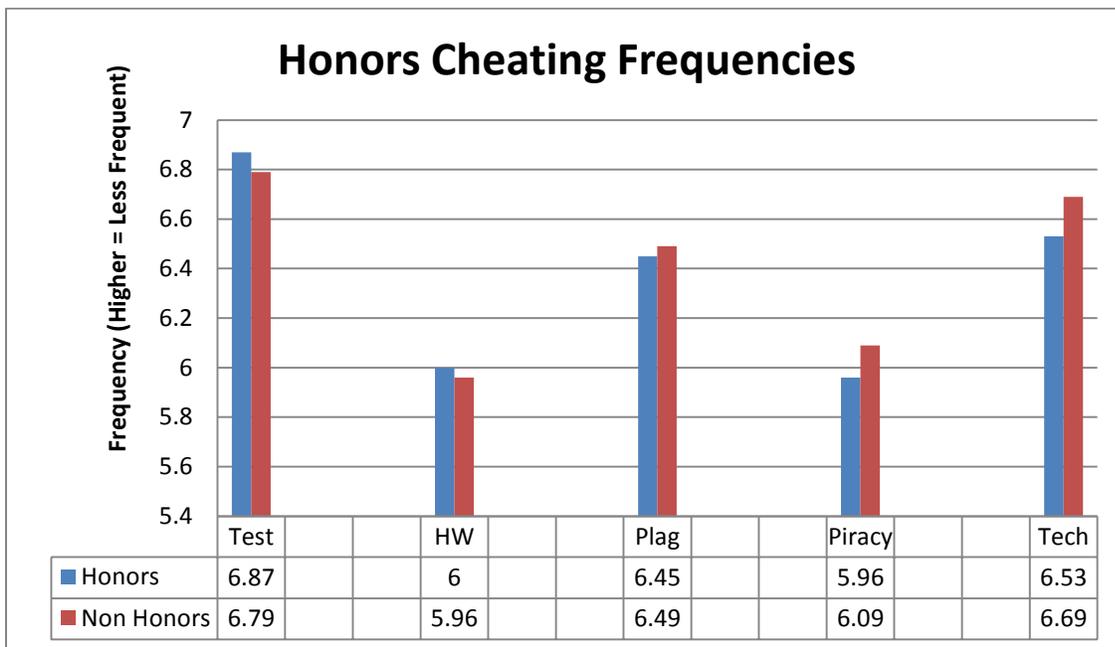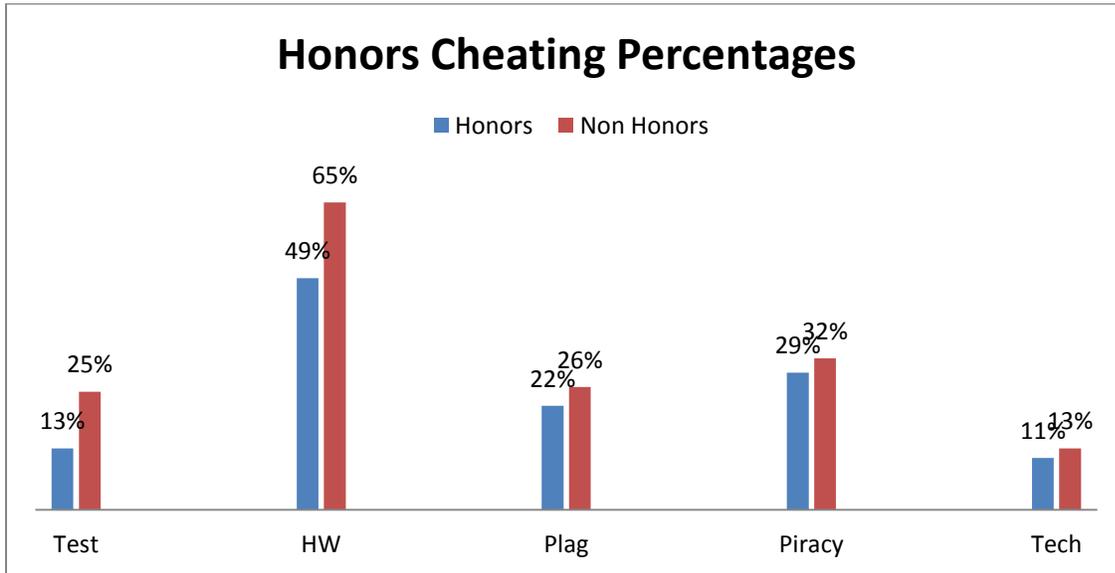
Frequencies don't align with the percentages in some cases.