

Effects of Trash-Talk on Motivation and Confidence in High School Athletes

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Abstract

When considering sports psychology, or the study of how mental factors influence sports performance, the concept of interpersonal interaction, such as trash-talk, becomes relevant. Trash-talk is any form of insult-talk aimed at competitors or peers during competitions, often serving as a means to taunt, intimidate, or get inside the head of the recipients. This research focuses on the relationship between trash-talking, motivation, and confidence for both the user and recipient to evaluate the overall purpose of trash-talking and determine whether the phenomenon has any beneficial or detrimental implications. Both motivation and confidence have been previously shown to impact athletes' performance during competitions. The data indicates that trash-talking is beneficial for the users in terms of boosting motivation and confidence levels internally, ultimately creating an indirect, positive relationship between trash-talking and performance. However, it appears as if the motivation and confidence of the recipients are minimally affected by trash-talking and if anything, the athletes respond positively. As a result, the pre-conceived intended external effects of trash-talking fail to match up with what occurs, mandating a change in association with why athletes should or should not trash-talk.

Introduction

Within the context of sports at all levels, most athletes and coaches previously felt success was determined solely by which team or athlete was physically superior or more skilled. While this is a primary factor, the development of sports psychology over the past century has led to the indication that the mental aspects of sports are comparably important to physical preparation and ability. Whether it be motivation, confidence, internal pressures, or external influences, the cerebral factors that go into athletic performance are now recognized as critical by collegiate and professional sports teams and athletes alike, as determined by previous research conducted by many, including Dr. Richard Lazarus (2000) from the University of California, Berkeley.

When considering how external influences affect motivation and confidence, which are critical determinants of how athletes perform during competitions, trash-talking becomes prominent. This is a form of insult-talk aimed at competitors or peers during competitions, often serving as a means to taunt, intimidate, or psychologically harm the recipients. Some famous instances of trash-talking include the contentions of renowned athletes such as Muhammad Ali, Michael Jordan, and Larry Bird. In many competitions, this verbal intimidation exists in some facet, with varying implications depending upon the situation. The majority of previous studies have focused on this topic among collegiate or professional athletes, but rarely among high school athletes. Nonetheless, high school athletes are a compelling group to consider because the findings apply to the greatest number of participants since high school sports are significantly more widespread than all other levels.

Interest in this study stemmed from personal experience and direct observation regarding trash-talk as well as the cognizance of conflicting results in previous studies, leading to a desire to determine how it plays out at the high school level. By discovering if trash-talk boosts or inhibits motivation and confidence, a determination of its effectiveness can be made. Likewise, student-athletes will be able to better comprehend why they choose to trash-talk by engaging with the survey, which may, in turn, lead to improvements in confidence, motivation, and potentially sportsmanship, depending on the results of the project.

Literature Review

Several studies helped identify which sports favor trash-talking and what causes variation between sports. For instance, an article published by David Rainey (2012), a researcher from John Carroll University, identifies that “the mean percentage of games for which trash-talk was reported did vary widely by sport, from only 2% in volleyball to 58% in ice hockey, with an average among the 11 sports sampled of about 16%” (p. 89). The implications of this study validate the idea that future research analyzing trash-talk should include a small number of sports that most commonly favor its occurrence due to this extreme variation in frequency. Likewise, a study conducted by researchers from the Department of Psychiatry and Behavioral Science University of Texas-Houston asserted that high contact sports with close interpersonal interaction, such as football and basketball, favor the manifestation of verbal aggression, which applies to trash-talk (Huang, Cherek, & Lane). If more sports where trash-talk occurs frequently are analyzed concerning trash-talk’s presence and effects, future data will yield more accurate and relevant results. This mandates the implementation of sport-type limitations to ensure effectiveness for future studies.

A significant contradiction exists between the common reasons for trash-talking and what it truly does to competitors. David Rainey and Vincent Granito (2010), researchers from Lorain County Community College and John Carroll University, reported that athletes used trash-talk with the intent of psychologically intimidating their competitors in 69.7% of competitions and impeding their competitors' performance in 33.1% of competitions (p. 284). These responses show the vast majority of athletes trash-talk to negatively impact both the mental and physical capabilities of the competitor. However, results vary significantly in terms of what effects trash-talking actually has on the recipient. In Rainey and Granito's same research, the student-athlete participants claimed that they accomplished the goals previously discussed in a combined total of 39.6% of competitions, illustrating that trash-talk is effective to a certain extent (p. 284). Contrastingly, a study carried out by professors from Georgetown University and the University of Pennsylvania in the context of the workplace indicated that being the target of trash-talking motivates recipients to become more competitive and do whatever is necessary to be successful (Yip, Schweitzer, & Nurmohamed, 2017). By collecting a variety of different statistics to put together in one study, the researchers were able to analyze the immediate reactions to trash-talk, and their findings show that trash-talking is relatively ineffective in terms of negatively impacting the recipient. Such results challenge the overall validity and usefulness of trash-talking, raising attention to the clear separation between its intended and actual effects as the data provides conflicting results. Since some studies illustrate that trash-talk can have negative psychological effects on the recipient while others accentuate that athletes tend to respond positively to trash-talk, future studies need to address this clear contradiction and inconsistency between why it is used and what it actually does.

Conversely, specific studies were required to find methods to define the constructs of motivation and confidence for survey respondents in order to compare their feelings of how trash-talking affects their mental state to their general levels of these constructs. For example, the researchers who studied motivation created the Sport Motivation Scale (SMS), which included Likert scales to help respondents effectively answer the question of “Why do you practice your sport?” The athletes then answer in terms of agreement using statements such as “because it is one of the best ways I have chosen to develop other aspects of myself” and “for the pleasure I feel living exciting experiences” (Pelletier, Fortier, Vallerand, Tuson, & Briere, 1995, p. 18). The anecdotal data from these questions is then converted into quantifiable values where an average can be calculated on a per respondent basis to identify how motivated the athlete is. Because of this, questions from this scale were adapted and implemented for the study to determine baseline motivation levels for the respondents. Equally as important, the Trait Sport-Confidence Inventory (TSCI) has the same applications as the SMS, yet focuses on confidence. Therefore, similar calculations can be made to gauge how confident particular athletes are through scale-based prompts such as “compare your confidence in your ability to execute the skills necessary to be successful to the most confident athlete you know” (Vealey, 1988). By implementing both the SMS and the TSCI, baseline motivation and confidence levels could be determined for each athlete who participated in this study.

Gaps in Current Research, Question, and Hypothesis

Even though these studies provide meaningful contributions, there are still areas within the realm of trash-talking in sports that remain unexplored. No prior research has compared the intended effects and purposes of trash-talking with what truly happens, according to the athletes,

during competitions. Likewise, high school sports have only been examined in limited instances, meaning there may be some differences in regards to the effects of trash-talking on motivation and confidence depending on the level of competition as collegiate and professional athletes are more experienced. For instance, a case study conducted by Scott Eveslage and Kevin Delaney (1998) examined a high school basketball team for one season while focusing on what external influences lead to trash-talking. Although this research provides meaningful contributions in that respect, it fails to examine trash-talk's psychological implications and overall impact on performance in high school athletes. Most importantly, the effects of trash-talk in terms of motivation and confidence for both the user and the recipient have yet to be the main focus of a study on trash-talking. Previous contentions made between these three variables have been secondary focuses with inconsistent results due to the conflict between intended and actual effects as well as the contexts of the respective studies.

Taking the rationale behind why one uses trash-talk and what effects it has on both the user and recipient into consideration, *how do the effects of trash-talking in high school athletes influence motivation and confidence levels and do these influences tend to be beneficial or detrimental to performance?* By analyzing the connections between why high school athletes use trash-talk, how they respond to trash-talk, and how it influences motivation and confidence during competitions, this study will provide new focuses and contexts to analyze trash-talking that will contribute to overall knowledge on the topic.

The primary hypothesis of this research is that trash-talking increases motivation and confidence levels for the user, indicating a positive relationship, which ultimately is beneficial to performance in an indirect manner. At the same time, it is predicted that athletes who receive

trash-talk are often unaffected mentally, meaning that what actually happens does not line up with the intended effects. As a result, the assumption is that trash-talk is essentially only beneficial to the user assuming it makes them more motivated, energetic, and confident since in most cases, it has a minimal adverse effect on competitors.

Methodology

The human subjects surveyed for this project were student-athletes at Thousand Oaks High School (TOHS), a public school in a middle-class, suburban community. All grades, genders, and levels of sports, which are Varsity, Junior Varsity, and Freshman/Freshman-Sophomore, were included to compare the frequency of trash-talking across different groups. Conversations with the respective coaches of the desired sports teams at TOHS helped begin the survey distribution process. If the coaches were willing to do so, then the recruitment of participants took place indirectly using them as distributors of the surveys. However, another avenue of recruitment involved directly talking to student-athletes on the desired sports teams and giving them the surveys individually instead of having them distributed to an entire team to ensure that responses were received.

Student-athletes were not included in this study if they participated in only club sports that are not associated with an actual high school team. In addition, more individually focused sports that cause trash-talk to occur at an infrequent or minuscule rate as proven by previous literature, such as golf or swim, were excluded as well. Otherwise, the goal was to include as many different types of high school athletes as possible, as long as they attend TOHS, in order to obtain as much data as possible. The main sports focused on in the study are basketball, soccer, football, water polo, and lacrosse. These sports involve close interpersonal interaction and

contact between competitors via matchups during games, causing trash-talk to occur at a relatively consistent rate. Although there are additional sports that favor trash-talk, these were the best available at TOHS. Moreover, baseball was included in the study as the trash-talking is a combination of traditional trash-talk intertwined with a team in the dugout calling out an individual on the other team. By creating the inclusion and exclusion criteria, athletes more likely to trash-talk became the primary focus of the study, ultimately helping to answer the research question more effectively. This study neglected the idea that the athletes are officially engaging in rule-breaking behavior since the phenomenon is widely accepted and rarely enforced across all levels of sports, as illustrated by David Rainey's (2012) study on sports officials' responses to trash-talking.

Taking all of these factors into consideration, a total of 132 student-athletes of different sports and skill levels engaged in this study by taking a four-part survey. The first part of the survey identifies general information such as gender, sport choice, the team the respondents play on, and their year of high school. From there, as previously discussed, the next two sections included Likert scale questions adapted from the SMS and the TSCI to provide standard motivation and confidence levels that helped determine what types of athletes use trash-talk and how it affects them in terms of these psychological factors. Lastly, the participants responded to nine Likert scale questions with options ranging from 1 (almost never) to 7 (almost always), five multiple choice questions, and one open-ended question in direct relation to their use of and experience with trash-talking.

For data analysis, a variety of different calculations were necessary. Simple percentages helped to identify the portions of the data pool that fell into specific categories and enabled the

researcher to make the primary conclusions of the study. With both the SMS and the TSCI, average calculations determined central tendencies while standard deviation illustrated the spread in the given groups of respondents. As for the Likert scale questions related to trash-talk usage and exposure, the median helped analyze central tendencies while the Interquartile Range (IQR) determined the spread of the data. These methods of analysis were adapted since the Likert scales provided ordinal data.

Results and Discussion

At TOHS, 132 student-athletes across different grades, genders, and skill levels participated in the study. Out of this group, 27.3% (n=36) were Freshmen, 26.5% (n=35) were Sophomores, 25.8% (n=34) were Juniors, and 20.5% (n=27) were Seniors. Likewise, the level of competition varied as 59.8% (n=79) of the respondents were Varsity athletes, 27.3% (n=36) were Junior Varsity athletes, and 12.9% (n=17) were Freshman or Freshman-Sophomore athletes. More Varsity athletes took the survey than lower-level athletes because Varsity ranges across different ages, meaning it applies to a broader scope of individuals. Similarly, 62.1% (n=82) of the respondents were male, and 37.9% (n=50) of the respondents were female. The study focused more on male sports because previous research shows that male athletes are between two to three times as likely to experience trash-talk during competitions (Rainey & Granito, 2010, p. 289).

When analyzing the data as a whole, the presence of trash-talk was consistent with previous literature as 27.3% (n=36) of respondents demonstrated that they use trash-talk with some consistency during competition with a response greater than 4 (sometimes) on the Likert scale of *when playing in a game or competition, I trash-talk against my competitor*. On the other

hand, 25.8% (n=34) of participants claim to rarely ever trash-talk during games or competitions, as they responded with a 1 (almost never) to this same scale. The remaining 46.9% (n=62) of responses to this scale were a 2 (rarely), 3 (not often), or 4 (sometimes), indicating occasional trash-talk usage. Out of the population of student-athletes that responded to this scale with a 1 (almost never), 61.8% (n=21) of them were female, once again remaining consistent with the idea that trash-talking is less prominent in girls sports than boys sports, especially considering the fact there were fewer female respondents. Furthermore, the results suggest trash-talk is used more often at the Varsity level than the Junior Varsity and Freshman-Sophomore levels as 30.4% (n=24) of Varsity athletes responded to the same Likert scale with a response greater than 4 (sometimes). Contrastingly, only 22.6% (n=12) of lower level athletes gave answers within the same range of responses, ultimately making Varsity athletes a more meaningful group to analyze in the context of this study.

Standard Motivation and Confidence

In order to determine the baseline motivation and confidence levels of the respondents, specific questions from the SMS and the TSCI were adapted to gauge these psychological factors in a general sense. For a comparison to be made to determine if certain dispositions belonged to trash-talkers or non-trash-talkers, the researcher separated the student-athletes into different groups. The main distinction being that of frequent trash-talkers, or those who responded with a value higher than 4 (sometimes) to *when playing in a game or competition, I trash-talk against my competitor*, and infrequent trash-talkers, or those who responded to the same statement with a value less than 4. Afterward, the mean “score” for those groups for both the SMS and TSCI could be determined through another average calculation. Despite preliminary predictions, the

data did not illustrate the same relationship between the frequency of trash-talking and motivation in comparison to the regularity of trash-talking and confidence. Standard motivation levels seem to be similar regardless of trash-talk frequency as the average score on the SMS was 4.43 for frequent trash-talkers with a standard deviation of 1.09 and 4.19 for infrequent trash-talkers with a standard deviation of 0.72. Even though there is a slight variation in the mean SMS, this demonstrates that there is a minimal correlation between the frequency of trash-talking and higher standard motivation levels. For this scale, higher responses can signify lower motivation in some instances; therefore, the average answer is what was used to calculate the “score,” making sure it remained consistent among frequent and infrequent trash-talkers. Considering the fact the standard deviation is relatively small for the average SMS scores for both groups, it is apparent the sample group possessed relatively average baseline motivation levels since a response of 4 indicated neutrality across all questions.

In opposition, the average score on the TSCI was 5.69 with a standard deviation of 1.40 for frequent trash-talkers and 4.84 with a standard deviation of 1.30 for infrequent trash-talkers, demonstrating the connection between baseline confidence levels and frequency of trash-talking as there is nearly an entire TSCI point variation between the two groups. As a result, the rest of the data analysis utilized the same groupings of frequent trash-talkers and infrequent trash-talkers to ensure certain prior dispositions did not cause inaccuracies in the data. The standard deviation for the different groups further supports the claim that conventional trash-talkers tend to be more confident as the similar standard deviation exemplifies how the majority of the respondents reside in that range, demonstrating that frequent trash-talkers have higher baseline confidence levels, even if there may be sporadic overlap.

Use of Trash-Talk

After establishing a comparison between the frequency of trash-talk usage and motivation and confidence levels, the focus shifted towards whether or not trash-talking increases these constructs, which are vital to performance. In order to accomplish this, the data was broken up into frequent and infrequent trash-talkers according to their responses to *when playing in a game or competition, I trash-talk against my competitor*, just like it was when the TSCI and SMS responses were analyzed. When considering this component of the survey, the responses of those classified as frequent trash-talkers are much more relevant to answer the question, even though they are a smaller percentage of the entire data pool, due to the fact they indicate more experience with trash-talking, making their responses based on circumstantial evidence instead of guesses. There was significant variation between frequent and infrequent trash-talkers as 83.3% (n=30) of habitual trash-talkers illustrated that when they trash-talk in a game, they become more motivated, while only 21.8% (n=17) of occasional trash-talkers responded in the same way (see *Figure 1* and *Figure 2*). The Likert scale used to determine this referred to the statement *I use trash-talk in a way that is beneficial to my motivation levels*, where the percentage of responses greater than 4 (sometimes) for each group is listed above. The median of the responses for frequent trash-talkers was 6.5 with an IQR of 2, while the median for infrequent trash-talkers was 2 with an IQR of 3, providing validity to the claim that the vast majority of frequent trash-talkers experience motivational benefits when they use trash-talk much more often than those who are infrequent trash-talkers.

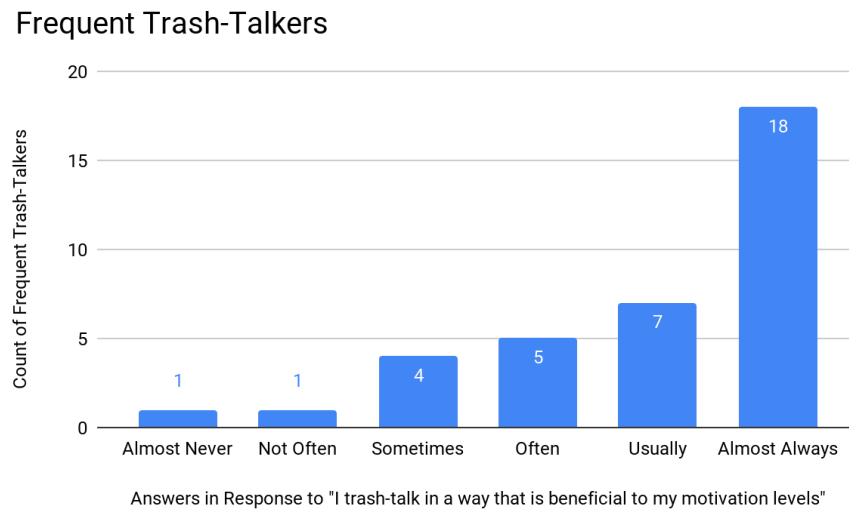


Figure 1. Breakdown of Likert scale answers among frequent trash-talkers in response to “I trash-talk in a way that is beneficial to my motivation levels.”

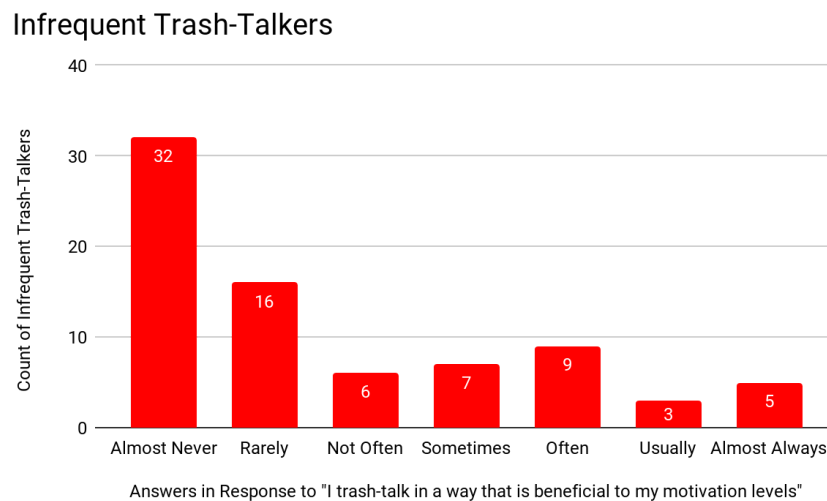


Figure 2. Breakdown of Likert scale answers among infrequent trash-talkers in response to “I trash-talk in a way that is beneficial to my motivation levels.”

A similar relationship existed in terms of confidence. In response to *when I use trash-talk, my confidence increases*, 72.2% (n=26) of consistent trash-talkers asserted an

agreement to the statement with a response higher than 4 (sometimes) while only 24.4% (n=19) of infrequent trash-talkers responded in like manner (see *Figure 3* and *Figure 4*). Frequent trash-talkers had a median of 6 with an IQR of 3, while the median for infrequent trash-talkers was 2 with an IQR of 3, indicating that those who consistently trash-talk tend to benefit from trash-talking in terms of confidence, while the effect is considerably less significant for infrequent trash-talkers. The results in association with these questions gauging the relationship between trash-talk and confidence support the findings of a study done by researchers from Florida State University who concluded there was a positive relationship between self-efficacy, which is essentially confidence, and the use of trash-talk among individuals participating in a Madden NFL 08 competition (Conmy, Tenenbaum, Eklund, Roehrig, & Filho, 2013).

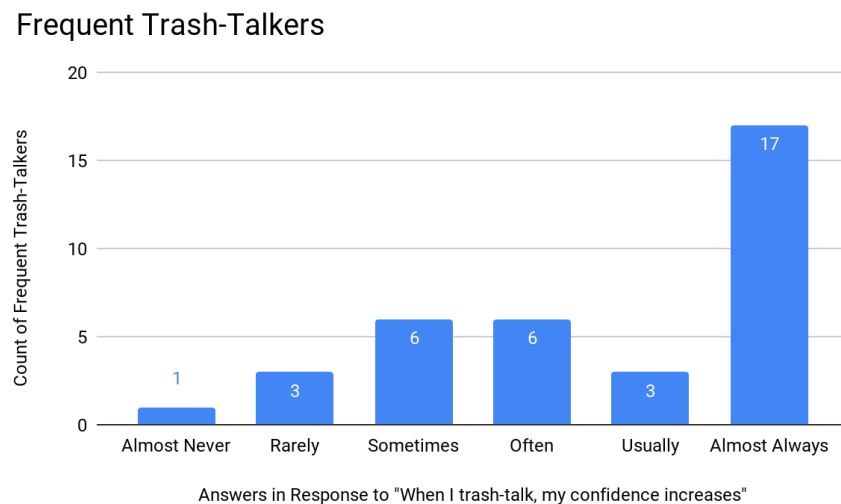


Figure 3. Breakdown of Likert scale answers among frequent trash-talkers in response to “When I trash-talk, my confidence increases.”

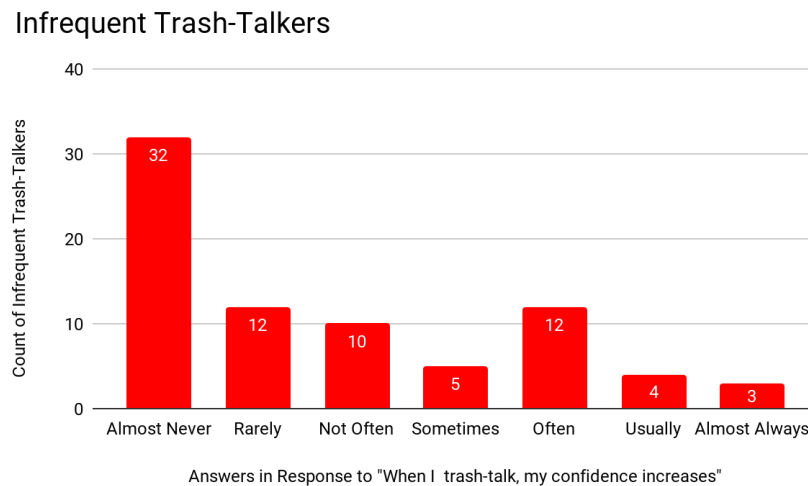


Figure 4. Breakdown of Likert scale answers among infrequent trash-talkers in response to “When I trash-talk, my confidence increases.”

A likely explanation for this extreme variation between the subgroups is that the vast majority of those who responded with a 1 (almost never) in response to *when playing in a game or competition, I trash-talk against my competitor*, also answered these two questions with a 1, as those who do not use trash-talk also cannot experience its potential benefits, rejecting the idea of a possible reverse correlation. These responses demonstrate that since they do not use it, trash-talk does not increase their motivation or confidence. Another possible reason for this difference includes the fact 66.7% (n=24) of frequent trash-talkers were also Varsity athletes, which is a group that trash-talks more regularly. Regardless, the respondents illustrated that the more frequently that student-athletes use trash-talk, the more they believe it benefits their motivation and confidence levels, which will be elaborated upon as it supports the claim that athletes should use it to improve their mental state during competition.

Indirect Effects on Performance

One of the central purposes of this study is to help high school athletes determine whether trash-talk benefits or harms their motivation and confidence both internally and externally, and then conclude whether or not the phenomenon helps them succeed during competition. If athletes obtain this information, then their performance can improve to some extent as a result. Most previous results demonstrate that there is a positive relationship between confidence and performance as greater confidence tends to lead to superior performance. To demonstrate, a meta-analysis study conducted by Tim Woodman and Lew Hardy (2003), researchers from the School of Sport, Health, and Exercise Sciences at the University of Wales, examined 42 different articles that studied this relationship and determined that 76% of the studies reported a positive relationship between confidence and performance (p. 447). Therefore, the assumption is if trash-talk increases confidence, which the majority of frequent trash-talkers in this study indicated as exemplified by the data previously discussed, then it indirectly benefits performance.

Similar concepts apply to the relationship between motivation and performance. Research conducted by sports psychologists at the University of Quebec, the University of Reims Champagne-Ardenne, and French Rabelais University concluded that greater self-determined motivation was found to “subsequently predict higher levels of sport performance during competition[s]” (Gillet, Vallerand, Amoura, & Baldes, 2010, p. 158). Once again, the idea is that increased motivation leads to improved performance, indicating similar assumptions apply to this study. Since the results of the survey illustrate that trash-talking, especially among those who use it frequently, increases motivation and confidence, it leads to the conclusion that

trash-talking is indirectly beneficial to performance. If there were more time to complete the study, appropriate measures would have been taken to prove this correlation definitively; however, specific requirements and the inability to numerically define the construct of performance prevented this analysis from occurring.

Responses to Trash-Talk

Moving on from analyzing the uses of trash-talking, the following section focuses on the effects that receiving trash-talk has on high school athletes during competitions to determine whether or not trash-talk is beneficial for external purposes, in addition to the internal gains previously discussed. Once again, the subjects were broken up into similar groups, with those who responded with a value higher than 4 (sometimes) to *when playing in a game or competition, my competitor uses trash-talk against me* classified as frequent trash-talk targets and those who responded with a value less than 4 as infrequent targets. With this distinction, 28.0% of the student-athletes (n=37) fit into the infrequent exposure group, 49.2% (n=65) applied to the repeated exposure group, and the remaining 22.8% (n=30) answered neutrally. There was significant variation among the two different groups in terms of how trash-talking affects them, as it seems those who experience the phenomenon more frequently are impacted less and respond to it more positively. This disparity can be exemplified with the general responses to the Likert scale of *when someone uses trash-talk against me, it boosts my motivation levels, and I become more competitive*. 86.2% (n=56) of frequent trash-talk targets reported that this statement is true to some extent with a response greater than 4 (sometimes) while only 40.5% (n=15) of infrequent trash-talk targets indicated the same. The median for frequent trash-talk recipients was 6 with an IQR of 2, showing that the vast majority of

student-athletes in this subgroup respond to trash-talk positively, challenging the pre-conceived notion of its effects on the recipients. As for infrequent trash-talk targets, the median was 4 with an IQR of 3. Regardless of the percentage differences, it seems apparent that trash-talking is ineffective externally as can be seen by how frequent targets respond to it mentally. Essentially, the data contradicts the external intentions of trash-talking, as most try to harm the mindset, motivation, and confidence of the competitor through their use of it.

Additional survey questions alluded to similar concepts in terms of trash-talking indeed having a minimal effect upon the recipient. For instance, the Likert scale of *when I receive trash-talk, I am emotionally affected by what my competitor says* demonstrates this claim as 80.0% (n=52) of frequent trash-talk targets and 86.5% (n=32) of infrequent trash-talk targets claimed that trash-talk does not affect them emotionally, as they responded with a value less than 4 (sometimes) (see *Figure 5* and *Figure 6*). The median was 1 with an IQR of 2 for frequent trash-talk recipients and 2 with an IQR of 2 for infrequent trash-talk targets.

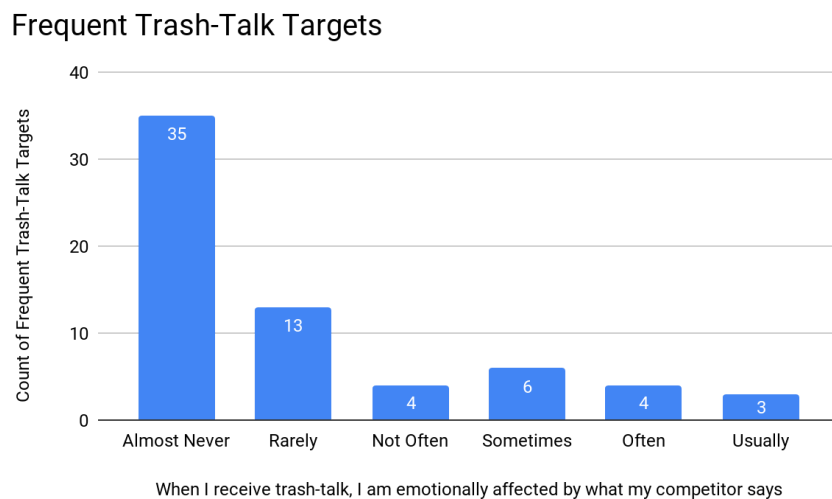


Figure 5. Breakdown of Likert scale answers among frequent trash-talkers in response to “When I receive trash-talk, I am emotionally affected by what my competitor says.”

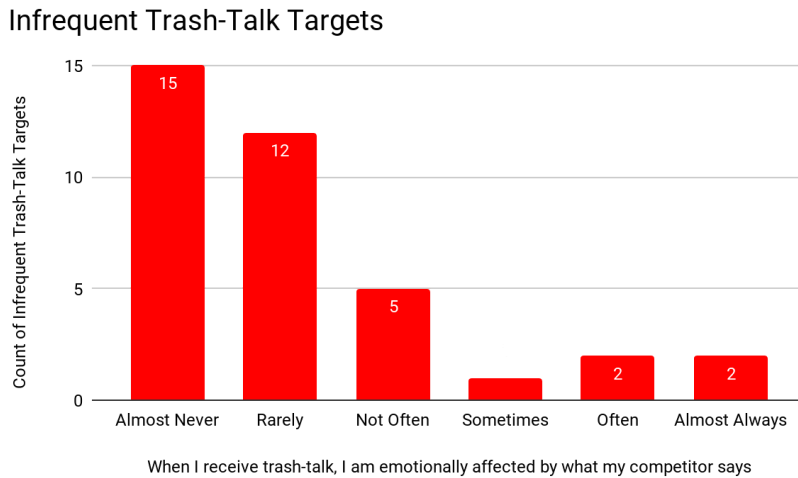


Figure 6. Breakdown of Likert scale answers among infrequent trash-talkers in response to “When I receive trash-talk, I am emotionally affected by what my competitor says.”

Even though the responses of both groups are worth noting for questions concerning trash-talk responses, those of the frequent targets remain more pertinent since they illustrate a higher frequency of exposure. The fact there was such a considerable variation between the two previous questions about the infrequent trash-talk targets’ responses should be acknowledged but not scrutinized. A likely explanation for the variation is that the majority of infrequent targets had lower baseline motivation and confidence levels. The average SMS score for this group was 3.84 while it was 4.53 for frequent targets and the average TSCI score was 4.80 for infrequent targets and 5.30 for frequent targets. Therefore, the difference in responses between the two questions is plausible since the infrequent exposure group demonstrates lower standard levels, meaning trash-talk would likely have little to no impact on their motivation and confidence

levels in comparison to the higher frequency athletes that have dispositions to exemplify higher levels of these traits without external influence.

Moreover, the participants' most common responses to trash-talk illustrate this same assumption that recipients are minimally affected by it. When answering *if a competitor uses trash-talk against you, which of the following would most likely be your response*, precisely 50.0% (n=66) of respondents answered with *ignore the competitor and become more motivated to outperform him or her*, and 11.4% (n=15) answered with *I don't respond at all to trash-talk*, demonstrating positive responses (see *Figure 7*). Adversely, 22.7% (n=30) reported that they would *respond to the competitor with trash-talking*, 8.3% (n=11) would *physically retaliate with violence*, and 2.3% (n=3) would *lose all confidence and motivation and consequently play afraid against that opponent*. The remaining 5.3% (n=7) typed in personal responses that mainly included a combination of the ideas listed above.

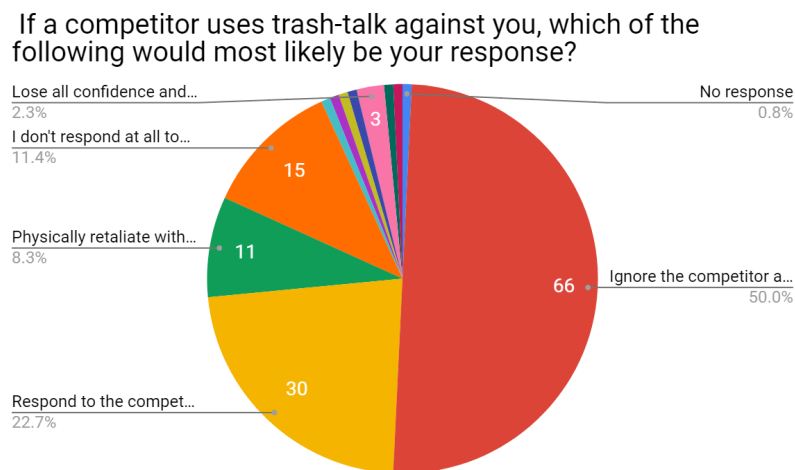


Figure 7. Breakdown of multiple-choice answers in response to “If a competitor uses trash-talk against you, which of the following would most likely be your response?”

Essentially, the vast majority of respondents accentuated that trash-talk has minimal adverse effects upon their ability to perform during a competition, whether in terms of emotional or physical responses, further exemplifying how trash-talking, in most cases, fails to accomplish the external goals of the user.

The main conclusions that can be derived from the totality of this data are that trash-talk is effective for the user internally, as those who trash-talk revealed that both motivation and confidence increase as a result of trash-talking; however, the phenomenon does not accomplish the traditional intended external effects of the user. Most recipients are minimally affected by trash-talking in terms of motivation and confidence and do not respond in the manner previously conceptualized. Therefore, it seems the only practical use of trash-talking is for athletes to improve their psychological state which will ultimately be beneficial to performance.

Limitations and Future Directions

Although this study accomplished the majority of its project goals, there were still some areas left unexamined as a result of survey set up, types of respondents, and time constraints. For instance, if there was more time to conduct the research, there are several ways to add validity to the conclusions, particularly the ones dealing with the effects of trash-talking on motivation and confidence during competition. Even though the correlations developed are logical and accurate, the results primarily come from a combination between the opinions of the respondents and their SMS or TSCI “scores.” Another way to definitively identify this relationship could have come from direct observation of trash-talking in a case study. Likewise, interviews with individuals who indicated a high frequency of trash-talk usage would have been

beneficial; however, the limited amount of time and struggle to obtain survey participants hindered this occurrence.

When considering future applications for research in the realm of trash-talking and sports psychology, some possible directions include firsthand observation of trash-talk that could prove certain claims without relying on previous literature as a comparison. The indirect correlation between the use of trash-talk and overall performance could be definitively proven through a case study of various athletes throughout a high school sports season where the researcher controls whether or not the athletes use trash-talk. This could not be accomplished in this study as a result of the resources available and the limited timeframe.

Conclusion

The purpose of this study was to determine whether trash-talk, as a whole, has positive implications during competitions in terms of motivation, confidence, and impacts upon the competitor. Ultimately, the data indicated that, in most cases, trash-talk is beneficial to the users as it increases their motivation and confidence, which have been previously shown to improve the performance of athletes. At the same time, the responses of the student-athletes who participated in the study demonstrated that the recipients of trash-talking are affected at an infrequent rate and sometimes the response to trash-talk comes in direct contradiction with the intended effect on the competitor, proving there are minimal external consequences of trash-talking that are beneficial to the user. Therefore, trash-talking is practical and favorable for internal purposes but often fails to negatively impact the competitor, causing a shift in what the real reason athletes trash-talk should be. The implications of this study are valuable because they provide athletes with a better understanding of how trash-talking affects a multitude of different

factors that impact performance. As a result, a better understanding of how trash-talking in focused ways maximizes the internal benefits that athletes receive from it, which ultimately has the potential to improve athletes' sports experiences as a whole.

References

- Conmy, B., Tenenbaum, G., Eklund, R., Roehrig, A., & Filho, E. (2013). Trash talk in a competitive setting: Impact on self-efficacy and affect. *Journal of Applied Social Psychology, 43*, 1002-1014. doi:10.1111/jasp.12064
- Crocker, P.R.E. (1997). A confirmatory factor analysis of the Positive Affect Negative Affect Schedule (PANAS) with a youth sport sample. *Journal of Sport & Exercise Psychology, 19*(1), 91-97. doi:10.1123/jsep.19.1.91
- Dunn, J.G.H & Dunn, J.C. (1999). Goal orientations, perceptions of aggression, and sportpersonship in elite male youth ice hockey players. *The Sport Psychologist, 13*(2), 183-200. doi:10.1123/tsp.13.2.183
- Eveslage, S. & Delaney, K. (1998). Talkin' trash at Hardwick High: A case study of insult on a boys' basketball team. *International Review for the Sociology of Sport, 33*(3), 239-253. doi:10.1177/101269098033003002
- Gillet, N., Vallerand, R.J., Amoura, S., & Baldes, B. (2010). Influence of coaches' autonomy support on athletes' motivation and sport performance: A test of the hierarchical model of intrinsic and extrinsic motivation. *Psychology of Sport and Exercise, 11*, 155-161. doi:10.1016/j.psychsport.2009.10.004
- Huang, D.B., Cherek, D.R., & Lane, S.D. (1999). Laboratory measurement of aggression in high school age athletes: Provocation in a nonsporting context. *Psychological Reports, 85*, 1251-1262. doi:10.2466/pr0.1999.85.3f.1251

- Kelly, S. & Waddington, I. (2006). Abuse, intimidation, and violence as aspects of managerial control in professional soccer in Britain and Ireland. *International Review for the Sociology of Sport*, 41(2), 147-164. doi:10.1177/1012690206075417
- Kreager, D.A. (2007). Unnecessary roughness? School sports, peer networks, and male adolescent violence. *American Sociology Review*, 72(5), 705-724.
doi:10.1177/000312240707200503
- Lazarus, R.S. (2000). How emotions influence performance in competitive sports. *The Sport Psychologist*, 14(3), 229-252. doi:10.1123/tsp.14.3.229
- Pelletier, L.G., Fortier, M.S., Vallerand, R.J., Tuson, K.M., & Briere, N.M. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and amotivation in sports: The Sport Motivation Scale (SMS). *Journal of Sport and Exercise Psychology*, 17(1), 35-53.
doi:10.1123/jsep.17.1.35
- Rainey, D.W. (2012). Sport's officials' reports of hearing trash-talk and their responses to trash-talk. *Journal of Sport Behavior*, 20(1), 78-93. Retrieved from
<https://search.proquest.com/docview/922364008?pq-origsite=gscholar>
- Rainey, D. W. & Granito, V. (2010). Normative rules for trash-talk among college athletes: An exploratory study. *Journal of Sport Behavior*, 33(3), 276-294. Retrieved from
<https://www.cabdirect.org/cabdirect/abstract/20103259773>
- Shields, E.W. (1999). Intimidation and violence by males in high school athletics. *Adolescence*, 34(135), 503-521. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/10658858>
- Silva, J.M. (1983). The perceived legitimacy of rule-violating behavior in sport. *Journal of Sport Psychology*, 5(4), 438-448. doi:10.1123/jsp.5.4.438

- Vealey, R.S. (2009). Assessing sport confidence: How confident are you? [PDF file]. Retrieved from <https://www.joannelove.com/vealey-s-trait-sport-confidence-inventory-tsci>
- Woodman, T. & Hardy, L. (2003). The relative impact of cognitive anxiety and self-confidence upon sport performance: A meta-analysis. *Journal of Sport Sciences*, *21*, 443-457. doi:10.1080/0264041031000101809
- Yip, J.A., Schweitzer, M.E., & Nurmohamed, S. (2018). Trash-talking: Competitive incivility motivates rivalry, performance, and unethical behavior. *Organizational Behavior and Human Decision Processes*, *144*, 125-144. doi:10.1016/j.obhdp.2017.06.002

Appendix A

Trash-Talk in High School Sports Survey

Trash talk is defined as negative, boastful, or threatening comments aimed at competitors or peers regarding their skill or ability to perform during competition. Please answer the following questions and respond to the following scales regarding your personal use of and feelings toward trash talk in high school sports as truthfully as possible. If you play multiple sports, please choose one to focus on when responding to the survey. This survey is completely anonymous.

Part One: Identifying Information

What is your grade level?

Freshman

Sophomore

Junior

Senior

What sport do you play?

Boys Basketball

Girls Basketball

Girls Soccer

Boys Soccer

Football

Boys Water Polo

Girls Water Polo

Baseball

Softball

Boys Lacrosse

Girls Lacrosse

Other

What team are you on?

Varsity

Junior Varsity

Freshmen/Frosh-Soph

Part Two: Sport Motivation Scale

Why do you practice your sport? Please respond to the following Likert scales to help answer the question above. Questions are adapted from the SMS designed by Pelletier, Fortier, Vallerand, Tuson, Brikre, and Blais. 1=Strongly Disagree, 2=Disagree, 3=Somewhat Disagree, 4= Neutral, 5=Somewhat Agree, 6=Agree, 7=Strongly Agree

1. I used to have good reasons for participating in sports, but now I am asking myself if I should continue participating in them.
2. I participate in sports for the intense emotions that I feel while I am playing a sport that I like.
3. I play sports to show others how good I am at my sport.
4. I play sports because it allows me to be well regarded by people that I know.
5. I play sports because I feel a lot of personal satisfaction while mastering certain skills or techniques.

6. I play sports because it is one of the best ways to develop other aspects of myself.
(fitness, discipline, friendship, leadership, etc.)
7. I feel like I will never be capable of success in this sport.

Part Three: Trait Sport-Confidence Inventory

Answer the following questions in relation to how confident you generally feel when you compete in sports compared to the most confident athlete you know. Questions are adapted from Vealey's TSCI Assessment. 1=Not Confident at all, 2=Not Confident, 3=Minimally Confident, 4=Neutral, 5=Somewhat Confident, 6=Confident, 7=Extremely Confident

1. Rate your confidence in your ability to execute the skills necessary to be successful in competition.
2. Rate your confidence in your ability to make critical decisions during competition.
3. Rate your confidence in your ability to adapt to different game situations and still be successful.
4. Rate your confidence in your ability to achieve your competitive goals.
5. Rate your confidence in your ability to meet the challenges of competition.
6. Rate your confidence in your ability to bounce back from performing poorly and be successful.
7. Rate your confidence in your ability to be successful even when the odds are against you.

Part Four: Trash-Talk

Please respond to the following scales, multiple choice questions, and open-ended questions.

1=Almost Never, 2=Rarely, 3=Not Often, 4=Sometimes, 5=Often, 6=Usually, 7=Almost Always

1. When playing in a game or competition, I trash-talk against my competitor.

2. I trash-talk in a way that is beneficial to my motivation levels.
3. When I trash-talk, my confidence increases.
4. I only trash-talk when I believe I am clearly better than my competitor.
5. The closeness or competitiveness of a game impacts my use of trash-talking.
6. In which of the following situations would you be most likely to trash-talk?
 - a. Close Game
 - b. Blowout- Your team is winning
 - c. Blowout- Your team is losing
7. When playing in a game or competition, my competitor uses trash-talk against me.
8. When someone uses trash-talk against me, it boosts my motivation levels, and I become more competitive.
9. When I receive trash-talk, I am emotionally affected by what my competitor says.
10. If a competitor uses trash-talk against you, which of the following would most likely be your response?
 - a. Respond to the competitor with trash talk
 - b. Physically retaliate with some sort of violence
 - c. Ignore the competitor and become more motivated to outperform him or her
 - d. Lose all confidence and motivation and consequently play afraid against that opponent
 - e. I don't respond at all to trash talk
 - f. Other
11. What are your internal motives for using trash-talk?

- a. Psych up self
 - b. Get motivated
 - c. Boost confidence
 - d. Do not use trash talk
 - e. Other
12. What are your intended external effects of using trash-talk?
- a. Psych out opponent
 - b. Make the opponent angry
 - c. Scare competitor
 - d. Do not use trash talk
 - e. Other
13. Do you believe those intended effects you just listed are what truly happens to your competitor when you trash-talk against him or her?
- a. Yes
 - b. No
 - c. Sometimes
 - d. Does not apply
14. I respond to trash-talk in a manner similar to those who I trash-talk against.
15. What are some example phrases of the trash-talk that you use?