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Examining the Pseudonymity of Sports Message Boards and the Subsequent Effects on Levels of Self-Disclosure, Expressing Extreme Opinions, Emotional Flaming, and Fandom

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EXAMINING THE PSEUDONYMITY OF SPORTS MESSAGE BOARDS AND THE

SUBSEQUENT EFFECTS ON LEVELS OF SELF-DISCLOSURE, EXPRESSING

EXTREME OPINIONS, EMOTIONAL FLAMING, AND FANDOM

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This study examined how not revealing one's real-world identity (i.e., being pseudonymous) on sports message boards affects levels of self-disclosure, expression of extreme opinions, frequency of emotional flaming, and levels of fandom. Quantitative scales were developed to measure self-disclosure, extreme opinions, emotional flaming, and fandom. After participants read two competing sports message board scenarios (one including a positive message and the other a negative message), they responded to the survey questions. A content analysis of real sports message boards was also conducted to examine how these variables function in a naturalistic setting.

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CHAPTER I

REVIEW OF LITERATURE

Statement of the Problem

In many previous studies, researchers investigated the anonymity of message

boards in relation to general message board behaviors such as self-disclosure, expressing

extreme opinions, and emotional flaming (Danescu-Niculescu-Mizil, Kossinets,

Kleinberg, & Lee, 2009; Davenport, 2002; Joinson, 2001; Kacimi, Ortolani, & Crispo,

2009; Kilner & Hoadley, 2005; Yun & Park, 2011). Anonymity occurs when one does

not utilize identifying information. Pseudonymity, on the other hand, refers to utilizing a

username or other identifier that is not the individual's real name. Anonymity and

pseudonymity are part of a continuum that ranges from the lowest level of identifiability

(or complete anonymity) to the highest level of identifiability (i.e., using a real name).

The continuum begins at the lowest identifiability level (complete anonymity), which

consists of not utilizing a real name or username and not disclosing any identifying

information. The continuum continues at the second lowest identifiability level (or

pseudonymity), which consists of utilizing a username. The third lowest identifiability

level in the continuum is self-disclosure while utilizing a pseudonym, which involves

using a username and disclosing identifying information. The continuum concludes at the

highest identifiability level, which involves utilizing a real name. It is not as common for

studies to look specifically at sports message boards and examine both general message board behaviors that apply to various types of message boards and ideas such as fandom that are specific to sports message boards. This study focuses on the pseudonymity of sports message boards, rather than anonymity, because sports message boards generally require individuals to utilize usernames to participate. Sports message boards generally do not allow users to post anonymously without utilizing any type of username or identifier.

Eighty years ago during the rise of radio, conversations about sports games occurred mainly in face-to-face (FtF) settings in restaurants, bars, stadiums, arenas, and households. Today, many of the conversations about sports games that previously occurred in FtF settings now take place online on message boards. The pseudonymity of online message boards allows individuals to hide their identity. One might reach the conclusion that people tend to feel more comfortable engaging in certain behaviors on online message boards when their identity is hidden, as opposed to in FtF settings, and that it is easier to sit behind a computer screen when nobody knows who one is and engage in name-calling, self-disclosure, and advocating extreme opinions, as opposed to doing so in FtF settings when one's identity is known. In the past, individuals had to be in close proximity to one another to have a conversation about a sporting event. This is no longer the case as fans from all over the globe can congregate on an online message board to talk about sports. It is now possible to converse with fans of one's favorite team that live halfway across the globe.

The opportunity to post on a message board dedicated to one's favorite team could allow individuals to feel closer to their favorite team because fans have an outlet at

the tip of their fingertips to be able to communicate about the team whenever they want and no longer need to rely on being in the same location as other fans to have a conversation about the team. In summary, studying the pseudonymity of sports message boards is applicable to the field of communication because fans interact with one another on sports message boards and fan interaction has evolved over time from face-to-face settings to environments where one's identity is not known such as sports message boards. The pseudonymity of sports message boards is important to study in the field of communication because it has changed the way sports fans communicate about sporting events. Thanks to the pseudonymity of sports message boards, fandom has changed because people are able to feel a stronger connection with their team by having an outlet to talk about them whenever they want and feel a stronger bond with fellow fans from all over the world. Individuals' communicative behaviors during conversations about sporting events have also changed because the pseudonymity of sports message boards allows individuals to feel more comfortable engaging in certain behaviors due to their identity being hidden.

The purpose of the study is to identify the impact of self-disclosure, extreme opinions, emotional flaming, and fandom in pseudonymous sports message boards compared to individuals whose identity is known. For example, is there an increase or decrease in self-disclosure on pseudonymous sports message boards compared to in a FtF environment where an individual's identity is known? Self-disclosure refers to revealing information about oneself. Expressing extreme opinions refers to holding strong viewpoints and voicing them. Emotional flaming refers to hostile and insulting actions

between individuals such as name-calling. Sports fandom refers to a self-report of how big of a sports fan an individual is.

Pseudonymity

Unlike FtF communication, individuals are able to more easily present themselves in the best possible light through selective self-presentation in computer-mediated communication (CMC). In CMC environments, individuals utilize their real names, online identities such as usernames, or a combination of both (Matic, 2011). Because individuals are worried about how others view them, they control how they act and present positive images to others to put themselves in the best possible light (Goffman, 1959). The concept of controlling actions and presenting positive images to others to put oneself in the best possible light is known as selective self-presentation (Walther, 2007). One aspect of CMC that enables individuals to present themselves in the most positive light and engage in selective self-presentation that is not possible in FtF communication is the editable nature of CMC (Walther, 2007). Individuals can change what they write before their messages are sent, which is not possible in FtF interactions. The ability to change the words in a message or alter how others view the message is possible only in CMC, not FtF interactions (Walther, 2007). Also, the ability to terminate a message and start over is possible only in CMC, not FtF interactions (Walther, 2007). Additionally, an individual can take as much time as he or she wants to construct a message (Walther, 2007). Thus, people are afforded with all the time in the world to present themselves in the most positive light online, whereas this is not possible in FtF communication. Through selective self-presentation, individuals are more easily able to present themselves in the best possible light through CMC, as opposed to FtF communication.

Another factor that differs between CMC and FtF communication is individuals are also not in close proximity to one another in CMC. Therefore, individuals can hide their physical appearance and cues or other non-intentional actions that might affect an individual's view of the message being conveyed (Walther, 2007). Essentially, individuals' perceptions of the message are based solely on the written words in CMC because there is not much else to go off of such as cues of the individual conveying the message that is only possible to see in FtF communication. Individuals construct their identity based on the technology being used and the social environment surrounding the particular technology (Matic, 2011). Individuals' perceptions of others differ between CMC and FtF communication, since individuals are not located in close physical proximity to one other in CMC.

In CMC, anonymity and pseudonymity are both low levels of identifiability, although an individual who is pseudonymous is slightly more identifiable than a person who is anonymous. Anonymity "is the state of being not identifiable within a set of subjects" (Pfitzmann & Kohntopp, 2001, p. 2). Pseudonymity "is the use of identifiers of subjects as IDs" (Pfitzmann & Kohntopp, 2001, p. 5). A pseudonym is defined as "an identifier of a subject other than one of the subject's real names" (Pfitzmann & Hansen, 2010, p. 21). Essentially, anonymity is when there is a lack of any type of username or identifier at all utilized whereas pseudonymity is when there is a username or other type of identifier that is not a real name that is utilized. For example, it is considered pseudonymity when someone posts on a message board using a username such as SuperFan1, whereas anonymity is when an individual posts on a message board as a guest without utilizing a username. Because a username is utilized in pseudonymity

whereas no username is used in anonymity, a higher level of accountability is attached to pseudonymity than anonymity. Since sports message boards generally require users to utilize usernames and do not allow users to post anonymously without utilizing any type of username or identifier, this study focuses on the pseudonymity of sports message boards.

Pseudonymity is broken up into different categories. A group pseudonym deals with a group of pseudonym users or multiple pseudonym users. A transferable pseudonym means that the pseudonym can be transferred from one individual to another. Sender pseudonymity means the sender of the message is pseudonymous and recipient pseudonymity means the recipient of the message is pseudonymous. Sender pseudonymity and recipient pseudonymity allows for privacy in two-way communication. A digital pseudonym is a bit string that is unique as an identifier and validates sent messages. A public pseudonym refers to the connection between a pseudonym and its user being publicly known from the start (Pfitzmann & Hansen, 2010). An example of this would be a public directory of individuals' pseudonyms. An initially non-public pseudonym refers to the connection between a pseudonym and its user being known by some individuals, but not the public (Pfitzmann & Hansen, 2010). An example of this would be friends having knowledge of each other's pseudonyms, but the public not knowing. An initially unlinked pseudonym refers to the connection between a pseudonym and its user being known only to the user (Pfitzmann & Hansen, 2010). This would be when only the individual who uses the pseudonym has knowledge of the owner. A role pseudonym is only used in specific situations (Pfitzmann & Hansen, 2010). An example of this would be for an account online. A relationship pseudonym

refers to different identifiers being used for each separate communication partner (Pfitzmann & Hansen, 2010). For example, one pseudonym may be used when talking to one person and another may be used when talking to someone else. A role-relationship pseudonym is when different identifiers are used for each separate person talked to and for each different situation. A transaction pseudonym refers to different identifiers for different transactions that are unidentifiable and each pseudonym is only used once (Pfitzmann & Hansen, 2010). For instance, there would be different transaction numbers for two separate purchases made at stores and a connection between the two would not be able to be made. A person pseudonym refers to pieces of an individual's identity that are considered substitutes for an individual's name such as nicknames, identifiers, and cell phone numbers (Pfitzmann & Hansen, 2010).

In the case of pseudonymous sports message boards, sender pseudonymity is applicable because the sender of a message in that environment is pseudonymous by utilizing a username. Recipient pseudonymity is also applicable in pseudonymous sports message boards because the recipient of a message in that environment is pseudonymous by utilizing a username. An initially non-public pseudonym would be applicable in pseudonymous sports message boards only if there are friends on the board that have knowledge of each other's pseudonyms without the public knowing. An initially unlinked pseudonym would be applicable in pseudonymous sports message boards only if the individual who holds the pseudonym is the sole person with knowledge of the pseudonym's owner. A person pseudonym is applicable in sports message boards because the username is considered a substitute for the individual's real name. Lastly, a role

pseudonym is applicable in sports message boards because the username is only used in the specific context of the message board.

Anonymity and pseudonymity differ because anonymity deals with an individual's identifiability, while pseudonymity deals with using the tactic of utilizing identifiers (Pfitzmann & Hansen, 2010). A number of factors cause anonymity's strength to increase. Anonymity is at its strongest when there is the largest possible number of potential subjects, when senders and receivers are evenly distributing messages amongst one another, when less is known about the linking to a subject pseudonymously, and with role-relationship pseudonyms and transaction pseudonyms. Additionally, the more often pseudonyms are changed over time and the less often context-spanning pseudonyms are used, the stronger the anonymity (Pfitzmann & Kohntopp, 2001). The greater the level of anonymity, the less identifiable the individual is to others. The more knowledge others have of pseudonyms and their owners, the weaker the anonymity (Pfitzmann & Hansen, 2010). Pseudonymity allows for more useful two-way communication than anonymity (Pfitzmann & Hansen, 2010). This is because identifiers are present only in pseudonymity, not anonymity.

Like pseudonymity, there are different categories of anonymity. According to Morio and Buchholz (2009), two types of anonymity are visual anonymity and dissociation of real and online identities. Visual anonymity occurs in a situation where individuals are unable to physically see each other when speaking. Dissociation of real and online identities occurs when an individual creates an online username, nickname or avatar, thereby creating a whole new online identity that is entirely different and separate from his or her real life identity (Turkle, 1995). According to Azechi (2005), visual

anonymity is a lower level of anonymity online than dissociation of real and online identities. Thus, individuals who seek to hide their identity should aim for dissociation of real and online identities and avoid creeping up to visual anonymity.

Visual anonymity can also occur in pseudonymous situations because individuals are unable to physically see each other when communicating on pseudonymous sports message boards. Dissociation of real and online identities also occurs in pseudonymous situations because an individual creates an online username on pseudonymous sports message boards to create a whole new online identity that is entirely different and separate from his or her real life identity.

Despite the study pertaining to pseudonymity since sports message boards are pseudonymous, much of the literature review relates anonymity, rather than pseudonymity, to the variables of self-disclosure, expressing extreme opinions, emotional flaming, and fandom. Most previous research discussed these variables in relation to anonymity, rather than pseudonymity. However, anonymity and pseudonymity are conceptually similar and the relationships between anonymity and self-disclosure, expressing extreme opinions, emotional flaming, and fandom can be linked to pseudonymity as well. Although they differ because individuals do not utilize any type of identifier in anonymity and an identifier that is not the individual's real name is utilized in pseudonymity, an individual's real life identity is hidden in both cases.

Self-Disclosure

There are two different dimensions of self-disclosure: self-disclosure breadth and self-disclosure depth. Self-disclosure breadth deals with the quantity of information exchanged (Taylor & Altman, 1975). Joinson (2001) related anonymity to self-disclosure

breadth, as he concluded that individuals with anonymity had higher levels of self-disclosure than others in online environments. It is logical to extend Joinson's findings to pseudonymity because anonymity and pseudonymity are conceptually similar, so thus, individuals with pseudonymity may have higher levels of self-disclosure than others in online environments as well. In addition, Joinson concluded that individuals with more private self-awareness had higher levels of self-disclosure than others in online environments. According to Joinson, private self-awareness, which is when one develops self-awareness about himself or herself only in a private setting, occurs when there is anonymity. Thus, private self-awareness may occur when there is pseudonymity as well. Individuals with anonymity or pseudonymity and private self-awareness engage in more self-disclosure than others.

Derlega and Chaikin (1977) determined a relationship existed between self-disclosure breadth and privacy in relationships. Specifically, Derlega and Chaikin concluded that there was a correlation between the amount of control one has over self-disclosure and the amount of privacy in a relationship. Hendrick (1981) examined the effects of self-disclosure breadth on marital satisfaction. Findings suggested that there was a positive relationship between self-disclosure breadth and marital satisfaction, and identified self-disclosure as a significant predictor of marital satisfaction. Tolstedt and Stokes (1984) examined the correlation between self-disclosure breadth and intimacy in relationships. A conclusion was drawn that there was a correlation between self-disclosure breadth and privacy, but did not determine whether or not it was a negative or positive correlation. On the other hand, it was determined that there was a positive

relationship between self-disclosure breadth and marital satisfaction, meaning an increase in the quantity of self-disclosure leads to increased marital satisfaction.

Similar to the relationship between marital satisfaction and self-disclosure breadth, there was also a positive correlation between self-disclosure breadth and intimacy. Tolstedt and Stokes (1984) examined the correlation between self-disclosure breadth and intimacy in relationships. Findings suggested that as intimacy decreased, self-disclosure breadth decreased. Rubin, Rubin, and Martin (1993) examined the relationship between affinity-seeking competence and self-disclosure breadth. Results determined a linear relationship existed between self-disclosure breadth and affinity-seeking competence. Solano, Batten, and Parish (1982) examined the relationship between being lonely and a self-perceived lack of self-disclosure to significant others. A conclusion was reached that loneliness was significantly related to a self-perceived lack of self-disclosure to opposite-sex friends for males and females. For females, loneliness was additionally related to a perceived lack of self-disclosure to same-sex friends. The study also examined the relationship between loneliness and actual disclosure behavior and concluded that the self-disclosure style of lonely people prohibited the regular development of relationships.

The difference between self-disclosure breadth and self-disclosure depth is quantity and quality. Self-disclosure depth deals with the quality of the information being disclosed (Taylor & Altman, 1975). In other words, self-disclosure depth refers to how personal the information that is being revealed is. Front stage is when the actors perform in front of an audience in a performance that has meaning to those that are watching. Front stage is a formal and fixed performance, so an actor's actions are predetermined.

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Back stage is when the actors do not perform in front of an audience and it is a more informal performance than front stage. Actions are not predetermined, so actors can do what they want back stage without worrying about following a certain script (Goffman, 1959). In terms of self-disclosure, front stage refers to non-personal self-disclosure that takes place in a public setting, while back stage refers to personal self-disclosure that takes place in a private setting. Front stage disclosure is associated with low levels of self-disclosure depth and back stage disclosure is associated with high levels of self-disclosure depth. Moon (2000) examined self-disclosure depth in relation to reciprocity and sequence and she also looked at the relationship between self-disclosure depth and the behavior of customers in later interactions. Both hypotheses were supported, so a conclusion was reached that a relationship existed between self-disclosure depth, reciprocity and sequence; and, findings determined a correlation existed between self-disclosure depth and the behavior of customers in later interactions.

There is a higher level of self-disclosure depth present in support forums than discussion forums. Thus, it is expected that there is a higher level of self-disclosure in support forums than pseudonymous sports message boards. Barak and Gluck-Ofri (2007) examined self-disclosure depth in online forums and concluded that there was a higher level of self-disclosure depth in support forums than discussion forums, messages in support forums were lengthier and included more personal language than discussion forums, no differences existed in results between genders, self-disclosure reciprocity was clear, and differences existed between males and females in terms of reciprocity because females were generally more reciprocal. McCroskey and Richmond (1977) constructed a hypothesis predicting a negative correlation between communication apprehension and

self-disclosure depth. Their hypothesis was supported and findings indicated a negative relationship existed between communication apprehension and self-disclosure depth.

Neither visual anonymity nor discursive anonymity conclusively results in increased self-disclosure. Qian and Scott (2007) looked at the relationship between visual anonymity and self-disclosure and discursive anonymity and self-disclosure online. Discursive anonymity is when the person who is speaking cannot be determined, such as when an individual's personal information cannot be determined in a conversation online. It is reasonable to extend Qian and Scott's findings to pseudonymity because anonymity and pseudonymity are conceptually similar, so it may be suggested that discursive anonymity and visual anonymity both occur in pseudonymous situations as well because an individual is not able to see the person he or she is communicating with and an individual's personal information cannot be determined in pseudonymous sports message boards. Qian and Scott determined that higher levels of visual anonymity do not result in increased self-disclosure and the effect of discursive anonymity on self-disclosure is unclear. Individuals whose audience consists of people that they do not know in real life have higher levels of anonymity and pseudonymity than individuals whose audience consists of people that they do know in real life.

Simply examining the impact of anonymity and pseudonymity on self-disclosure does not allow one to gain a full understanding of self-disclosure online. Joinson and Paine (2007) also examined the relationship between anonymity and self-disclosure. They determined that simply looking at anonymity's impact on self-disclosure is short-sighted because examining only a single factor does not take into account that self-disclosure happens in several different contexts online, such as blogs, message boards,

and e-mail. It is logical to extend Johnson and Paine's findings to pseudonymity because anonymity and pseudonymity are conceptually similar, so it may be suggested that simply looking at the impact of pseudonymity on self-disclosure is short-sighted as well. Joinson and Paine argued that ignoring the many contexts in which self-disclosure occurs does not allow individuals to satisfactorily understand online behavior. Keeping all the contexts in mind in which self-disclosure occurs online enables people to have a clearer understanding of online behavior across different situations, particularly as it relates to privacy online.

A community's anonymity or pseudonymity makes it difficult to tell who should and should not be trusted. Ku, Wei, and Hsiao (2012) examined anonymity within communities online where individuals share opinions on products. These communities enable buyers to say what they think about the products to inform the companies about what the opinion of the general public is regarding the products and how they should improve their products. Additionally, these communities help companies market their products through word-of-mouth. However, due to the anonymity of the community, individuals are hard pressed to decide whether or not they are to believe information provided by other people. Ku et al. attempted to divide the members with a strong reputation from those with a bad reputation in order to determine who should be trusted and who should not be. It was determined that trust intensity, average trust intensity, degree of review focus in the target category, and average product rating in the target category helped to divide the individuals into two groups. Now firms are able to determine who is trustworthy with their opinions in order to successfully market the products and individuals in the community now know who is trustworthy with their

opinions and who is not. It is logical to extend Ku, Wei, and Hsiao's findings to

pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it

may be suggested that this finding has implications on the pseudonymity of sports

message boards in relation to expressing extreme opinions because individuals on sports

message boards can also be divided into two different groups to determine who should be

trusted and who should not be. Thus, trustworthy extreme opinions can be filtered from

non-trustworthy opinions and each extreme opinion can be gauged in terms of

believability and validity. How seriously a particular pseudonymous sports message

board user's extreme opinion should be taken can be identified. Additionally, while there

is a desire to be seen as trustworthy to sell products in the community Ku, Wei, and Hsia

describe, there is a desire to be seen as trustworthy to have one's opinion be seen as

important and valuable in a sports message board. Posting frequently as an active

member of the community, participating over a long period of time to be perceived as one

of the community's core members, and self-disclosing to lend validity to your opinion are

three ways to be seen as trustworthy on a sports message board.

Anonymity or pseudonymity does not conclusively result in increased self-

disclosure. Hollenbaugh and Everett (2013) investigated the relationship between

anonymity and self-disclosure in blogs using the amount, breadth, and depth of self-

disclosure. They determined that individuals self-disclosed more information in their

blogs when they were visually identifiable and able to be physically seen. Visual

anonymity resulted in less self-disclosure and not disclosing one's real name resulted in

less self-disclosure. It is logical to extend Hollenbaugh and Everett's findings to

pseudonymity because anonymity and pseudonymity are conceptually similar.

Infertility bloggers have high levels of self-disclosure, despite the majority of them not being anonymous. Knoll and Bronstein (2014) examined self-disclosure in relation to online anonymity on infertility blogs. The majority of the individuals on the infertility blogs revealed their identities and only a few were anonymous. The majority of the bloggers post real pictures of themselves. The bloggers reported high levels of self-disclosure. There was no correlation between visual or discursive anonymity and self-disclosure. The more anonymous the bloggers are, the more they fear that people that they know in real life will read the blog. But the more identifiable the bloggers are, the more they are willing to share their journal with individuals they know in real life. It is logical to extend Knoll and Bronstein's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that individuals fear those they know in real life will read the blog in pseudonymous blogging situations.

Expressing Extreme Opinions

Citizens of other countries often utilize online resources to circumvent government rules. Kacimi et al. (2009) linked expression of extreme opinions to being anonymous by presenting an idea of creating a space online where users can remain anonymous and advocate extreme opinions such as disagreements and criticisms. They proposed the creation of an online network that would allow users to share their opinions amongst one another, while preserving their anonymity. It is reasonable to extend Kacimi et al.'s findings to pseudonymity because anonymity and pseudonymity are conceptually similar. One of their motivations for creating this network is the ability to have freedom of speech because in some foreign countries it is unlawful for citizens to criticize the government. This network would be a place where citizens could express their opinions

without receiving backlash from the government. The main concern of the authors for the network is to ensure its privacy because they feel privacy is lacking in other social networks. Therefore, they intend on ensuring privacy in their network by having an encryption process that ensures no one other than the intended recipient will read the message. Privacy is important in the network not only because of criticisms about the government, which is unlawful in other countries, but also because many of the participants in the network are underage. Even when a person's identity is not known, individuals still do not wish to get criticized for holding a minority opinion. Yun and Park (2011) tested people's willingness to speak out in online message boards. Their findings suggested that even with anonymity, individuals were still afraid to speak out when they were in the minority with their opinion. It is logical to extend Yun and Park's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that even with pseudonymity individuals are still afraid to speak out when they are in the minority with their opinion as well.

A loss of anonymity or pseudonymity online causes individuals to not comment as often. Kilner and Hoadley (2005) examined the changes of anonymity options in an online community and its effect on comment quality and professionalism. They attempted to eliminate anonymity from the online community and it resulted in fewer comments overall and fewer comments out of the social norm. It is reasonable to extend Kilner and Hoadley's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that removing pseudonymity from an online community results in fewer comments overall and fewer comments out of the social norm as well. Danescu-Niculescu-Mizil et al. (2009) opted to make a change as

well as it relates to being anonymous and expressing extreme opinions when they designed a new way of evaluating publicly expressed opinions. Expressing extreme opinions refers to the extremity level of advocated opinions, ranging from very opinioned to neutral or indifferent. It is logical to extend Danescu-Niculescu-Mizil et al.'s findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Wojcieszak and Mutz (2009) examined particular spaces online where heated political discussions were most likely to occur. They discovered that heated political arguments were most likely to occur in places online where politics discussions were not the purpose of the forum, but rather where it came up in off-topic conversation. Davenport (2002) argued that online anonymity was harming our society and that it needed to go because individuals were not being held accountable for the nasty and extreme opinions they advocated. It is reasonable to extend Davenport's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that the same argument could be made that pseudonymity is harming our society and that it needs to go because individuals are not being held accountable for the nasty and extreme opinions they advocate. He also added that arguments and disagreements online can seem harmless, but quickly turn into a real problem leading to actions such as crime, protests, revolutions, and violence.

Individuals are equally willing to share opinions online and in real life. Liu and Fahmy (2011) investigated how willing individuals were to share opinions online versus in real life. They determined that as sharing opinions online increases, sharing opinions in real life increases. Thus, anonymity is not a factor in sharing opinions, as individuals are equally willing to share opinions online where their identities are not known and in real

life where their identities are known. When other individuals' current opinions align with one's own opinions, it can result in a willingness to share one's own opinion in real life. However, when future opinions align with one's own opinions it does not result in sharing one's own opinion in real life. Future and current opinions aligning with one's own opinion did not lead to sharing one's own opinion online. Thus, anonymity online does not appear to influence individuals' decisions to share opinions in that medium where their identities are not known. It is logical to extend Liu and Fahmy's findings to pseudonymity because anonymity and pseudonymity are conceptually similar.

Online anonymity and pseudonymity enables individuals to express extreme opinions, as opposed to sending in a letter to the editor with a real name attached. McCluskey and Hmielowski (2012) examined opinions shared by individuals in online posts and letters to the editor in response to social issues in the community. Online comments were more balanced in terms of their range and tone of opinions than letters to the editor. Additionally, online posts were more critical of institutions in the community than letters to the editor. One reason online posts differed from letters to the editor is because individuals were given to option to post comments anonymously. It is reasonable to extend McCluskey and Hmielowski's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Individuals felt more comfortable being critical of institutions in the community when their names were not attached to their comments and their identities were not revealed. Additionally, newspapers reserve the right to not include letters to the editor that they deem to be not acceptable for print such as using inappropriate, abusive, or vulgar language; and expressing opinions too severely. There could have been letters to the editor that were sent in that were critical of local

institutions, but were not printed because they were deemed unacceptable for print. This serves as another explanation for why online comments were more critical of local institutions than letters to the editor.

There are no differences between actual states of anonymity and pseudonymity and individuals' perceptions of anonymity and pseudonymity in terms of conforming to group opinions online. Tsikerdekis (2013) examined the relationship between anonymity and conforming to group opinions online. He differentiated between actual states of anonymity and individuals' perceptions of anonymity. Tsikerdekis determined that different states of anonymity do not have a strong impact on the likelihood of conforming to group opinions online. There are no differences between actual states of anonymity and individuals' perceptions of anonymity in terms of the likelihood of conforming to group opinions online. It is logical to extend Tsikerdekis' findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that there are no differences between actual states of pseudonymity and individuals' perceptions of pseudonymity in terms of the likelihood of conforming to group opinions online as well.

Emotional Flaming

Throwing out the words "idiot" and "moron" on message boards is considered emotional flaming. More specifically, flaming refers to hostile and insulting actions between individuals such as name-calling (Lea, O'Shea, Fung, & Spears, 1992). Lea et al. challenged the idea that computer-mediated communication promoted flaming. They believed flaming did not occur solely in computer-mediated communication. Lee (2005) examined the factors that led to flaming online and how people respond when others

engage in flaming. Lee's findings generated coping strategies that individuals use to deal with flaming such as withdrawal, apologizing, joking, and meditating. Moor (2007) conducted an experiment to see if flaming early in a conversation set the tone throughout the rest of the conversation. He found that flaming earlier in a conversation does set the tone through the rest of the conversation where the behavior would continue to occur. Wang (1996) discussed flaming's role in an academic mailing list; flaming helped scare away the unwanted, educated the people who do not know what the group is all about, and brought the group together. Directing derogatory and vulgar language at an individual on a message board can cause these negative behaviors to linger on for a long time after.

Certain individuals are more likely to flame than others based on their characteristics. Zengerink (2013) determined that the typical flamer is male, spends at least 20 hours a week online, and at least 40 percent of the time spent online is on message boards. However, the women that flame do so more regularly than men (Zengerink, 2013). Age and level of education are not predictors of flaming (Zengerink, 2013). Typical flamers do so for amusement and to pass time and not to enhance their status or use flaming as an escape (Zengerink, 2013). The more a flamer's motives are satisfied through flaming, the more he or she flames and does so on multiple message boards (Zengerink, 2013). For instance, the more that flaming helps an individual pass time, the more he or she will flame and do so on multiple message boards. The typical flamer is agreeable, extraverted, conscientious, emotionally stable, and open to experiences (Zengerink, 2013). However, the less agreeable and less conscientious the flamer, the more likely he or she is to flame regularly and on multiple message boards

(Zengerink, 2013). The majority of individuals in Zengerink's study indicated that they flame sporadically; thus, he determined the majority of flames come from a small percentage of flamers that get a lot of satisfaction out of flaming. Individuals tend to be slightly bothered by flames aimed at others and messages and not bothered by flames aimed at them (Zengerink, 2013).

Zengerink's study also determined women are more bothered than men by flames aimed at others and messages. Women are the recipients of flames more often than men; additionally, Zengerink determined the more one is a recipient of flames, the more he or she is bothered by it. Individuals with higher levels of education are least bothered by flames aimed at them (Zengerink, 2013). Individuals who are bothered by flames are likely to also be flamers themselves and the more one flames, the more one is bothered by flames directed at him or her (Zengerink, 2013). However, the more one flames, the less one is bothered by flames aimed at others or messages (Zengerink, 2013). Additionally, flamers are less bothered by flames than non-flamers and the more one flames, the less one is bothered by flames (Zengerink, 2013). The typical participant in Zengerink's study does not avoid websites due to flaming activity. However, individuals who avoid websites are likely female, college graduates, and bothered by flames aimed at them, others, and messages (Zengerink, 2013). Individuals under 20 years old and over 60 years old are least likely to avoid websites due to flaming activity (Zengerink, 2013). Flamers avoid websites less frequently than non-flamers and the less one flames, the more likely one is to avoid website (Zengerink, 2013). Zengerink also determined that individuals with low emotional stability are most likely to avoid websites.

Individuals who have negative occurrences going on in their lives sometimes take out their anger online. Ybarra and Mitchell (2004) examined young people engaging in harassment online. They found that young people engaged in these behaviors as a result of having problems such as bad relationships with their parents and substance use. Li (2006) examined students from three different junior high schools to gain specific information about cyberbullying at that age level. Results indicated that most victims and bystanders did not report a bullying incident when it occurred and there were differences in the results between males and females as males were more likely to be cyberbullies than females. Li (2007) conducted another study about cyberbullying, but examined these behaviors in an urban environment instead this time and determined that females were more likely to be cyberbullies than males. Many of the other results were the same as the previous study though, such as the fact that most bystanders and victims did not report the occurrences to adults.

Online anonymity and pseudonymity cause a problem in online meetings because flaming occurs more prevalently in online meetings than FtF meetings and disrupts the work environment. Aiken and Waller (2000) examined flaming in relation to meetings that take place online, as opposed to FtF meetings. There is a relationship between flaming and task and group member characteristics. Task characteristics refer to task efficiency and group member characteristics deals with group cohesion. Flaming results in both negative task characteristics and negative group member characteristics. In other words, flaming results in decreased task efficiency and group cohesion. Group members are unable to get tasks accomplished at the normal pace and in an appropriate time frame when flaming occurs because it disrupts the normal flow of their meetings. Additionally,

flaming negatively impacts group cohesion because behaviors such as obscenities and insults result in members of the group not getting along with one another. Aiken and Waller determined that the majority of the flaming is not related to the topic at hand and a small number of comments represent a majority of the flaming. In other words, a couple of people are responsible for most of the flaming, so this is a sign that it may be two or three people flaming back and forth using obscene words and hurling insults at one another. There were no significant predictors and the majority of the flaming incidents occurred among males. Although flaming is a negative aspect of meetings occurring electronically rather than FtF, benefits include efficiency, effectiveness, and satisfaction.

The fear that online anonymity and pseudonymity promotes flaming steers teachers away from utilizing online group support systems that are designed to improve learning. Reinig, Briggs, and Nunamaker (1997) indicated that group support systems online can drastically improve learning for students in school, but some teachers are slow to implement group support systems because they are afraid that flaming will occur. Reinig et al. determined that flaming occurs when individuals are hostile because they believe that the interests that they have at heart have been violated or are about to be violated. Reinig et al. also indicated that the correlation between hostility and flaming is moderated by personal values and the risk of retaliation.

Anonymity or pseudonymity alone does not cause flaming. Chui (2014) examined the relationship between anonymity and antisocial behaviors such as flaming. She sought to find out if online anonymity affects online behavior and encourages antisocial behavior online or if online anonymity has no effect on antisocial behavior. Chui determined that individual contexts are important to consider, rather than just looking at anonymity

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because it alone does not cause antisocial behaviors because individuals have to be determined to act in antisocial ways. It is logical to extend Chui's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that perhaps individual contexts are important to consider, rather than just looking at pseudonymity as well. The self and the other are combined for the individual to act in antisocial ways. Individuals are affected by a combination of specific media contexts, anonymity or pseudonymity, and other factors to engage in antisocial behaviors.

Anonymity and pseudonymity are not the sole causes of flaming. Lapidot-Lefler and Barak (2012) examined the effect of anonymity, invisibility and a lack of eye contact on flaming. They noted that a lack of eye contact was the main contributor to the negative effects of flaming out of the three independent variables. It is reasonable to extend Lapidot-Lefler and Barak's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that their findings indicated that pseudonymity, as well as anonymity, are not the chief contributors of flaming. Previous studies tend to focus too much on anonymity and not examine any other communication factors at all that influence behaviors such as flaming.

Without technology, flaming would not occur as much because online anonymity and pseudonymity would not be present. Bilic (2013) compared and contrasted traditional inappropriate behaviors such as physical and verbal actions and online behaviors such as flaming and looked at anonymity's role in flaming. Technology enabled inappropriate behaviors that did not take place as much in real life such as flaming and there is now more intense participation from youth because of the anonymity online, not making

contact with the victim, and not feeling responsible for actions. It is logical to extend

Bilic's findings to pseudonymity because anonymity and pseudonymity are conceptually

similar. Individuals who engage in these behaviors have similar characteristics such as

having no empathy, not sticking to morals, not feeling guilty or responsible, not caring

about the consequences and the person that feels hurt, and having personal or family

issues. Victims also have similar characteristics including being psychotic, having

anxiety, depression, suicidal thoughts, and educational and social issues.

Fandom

Sports fandom and fandom elicit two very different definitions as sports fandom

is a self-report measure and fandom is not. Fandom is defined as "the regular,

emotionally involved consumption of a given narrative or text" (Sandvoss, 2005, p. 8).

According to Gray, Sandvoss, and Harrington (2007), fandom in relation to a sports team

is considered a text. Wann (1998) defined fandom more specifically in a sports context as

"the degree to which individuals considered themselves to be sport fans" (p. 287). Sports

fandom is a self-report of how big of a sports fan one is. Therefore, an individual has a

high level of sports fandom if he or she believes he or she is a big sports fan. On the other

hand, if an individual believes that he or she is not a big sports fan, then he or she has a

low level of sports fandom.

Two major themes of fandom have emerged through the literature including

forming social relationships with fellow fans of a favorite team and feeling a strong

connection with a favorite team. Positive characteristics associated with fandom include

feeling more socially connected, popular, and having a higher level of self-confidence,

particularly when a favorite team earns a victory (Branscombe & Wann, 1991; Cialdini et

al., 1976; End, Kretschmar, & Dietz-Uhler, 2004; Wann, 2006). Winegard and Deaner (2010) indicated that fans felt such a strong connection to the team that they acted as if they were actually on the team. Melnick (1993) discussed how sports fandom helped individuals feel a sense of community and recapture social connections. Zillmann, Bryant, and Sapolsky (1989) stated that fandom resulted in camaraderie and harmony between individuals, in addition to feeling a sense of increased social worth. Clavio (2008) listed the two top reasons for using sports message boards for college teams as information seeking and socialization. Looking for information on the team relates to the theme of feeling a strong connection to the team because knowing everything about them helps an individual feel closer to his or her favorite team.

Being a fan does not require a lot of effort or talent and anyone can be a fan. Zillmann et al. (1989) also listed additional positive aspects of fandom; for instance, not much skill is required to be a fan, the cost is inexpensive, and a wide array of interests can be acquired. Fandom is extremely inclusionary because individuals of any health status, sick or healthy, can be sports fans and people of any age, young or old, can be sports fans. Sloan (1989) identified several benefits of sports fandom including a sense of belonging, feeling happy, and enjoying recreational activities. Feeling a sense of belonging relates to both themes of feeling a strong connection to the team and fellow fans of the team. Wann, Inman, Ensor, Gates, and Caldwell (1999) stated that sports fandom enabled individuals to feel good about themselves. Branscombe and Wann (1991) noted that fandom taught life skills such as learning how to deal with your emotions, whether it is negative emotions such as disappointment or positive emotions such as elation. Clavio (2008) related fandom to anonymity because it allowed

individuals to be more comfortable expressing the way they truly feel, whether it is negative or positive, about their team. It is logical to extend Ku, Wei, and Hsiao's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that pseudonymity allows individuals to be more comfortable expressing the way they truly feel about the team as well. This results in higher levels of socialization taking place because people speak their mind with anonymity or pseudonymity rather than hiding their true feelings.

Anonymity and pseudonymity allows fans to bask in their glory and kick the other side while they are down. End (2001) concluded that anonymity in sports message boards enabled fans to use them to relish in the success of their team and simultaneously bash their opponents and opponents' fans. It is logical to extend Ku, Wei, and Hsiao's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that perhaps pseudonymity in sports message boards enables fans to use them to relish in the success of their team and simultaneously bash their opponents and opponents' fans as well. The result is feeling more connected to the team because anonymity and pseudonymity allows fans to gloat about the success as if they are actually on the team and also bash the opponents and opponents' fans as if they had actually just been on the field playing against the opposing team. Additionally, anonymity and pseudonymity enables fans to use the message boards to relish in the success of their team and simultaneously bash their opponents and opponents' fans and thereby allows fans to feel a stronger connection with one another because since they are all in on the act together, they are able to use it as a bonding experience.

Anonymity and pseudonymity on sports message boards can have a negative impact on sports fandom though as well. Cleland (2013) examined fans' views toward racism on two soccer message boards. He determined that online sites such as sports message boards allow racist thoughts to circulate, in part because of online anonymity and individuals feeling the power to say what they want because their identity is not revealed. It is reasonable to extend Cleland's findings to pseudonymity because anonymity and pseudonymity are conceptually similar.

Research Questions

The previous research leads to a specific set of research questions. The ideas reflected throughout the research deal with anonymity, self-disclosure, extreme opinions, emotional flaming, and fandom in sports message boards. The research indicates that being anonymous is a factor that influences amounts of self-disclosure, expression of extreme opinions, emotional flaming, and fandom on sports message boards. It is logical to extend findings dealing with anonymity to pseudonymity because anonymity and pseudonymity are conceptually similar. This specific research concerns itself with the notion of increased levels of self-disclosure as a result of being anonymous. Joinson (2001) argued that individuals with anonymity in online environments had higher levels of self-disclosure than others. He also claimed that individuals with more private self-awareness in online environments had higher levels of self-disclosure than others, and private self-awareness occurs when there is anonymity. However, neither visual anonymity nor discursive anonymity conclusively results in increased self-disclosure. Qian and Scott (2007) determined that higher levels of visual anonymity do not result in

increased self-disclosure and the effect of discursive anonymity on self-disclosure is unclear. This idea leads to the first set of research questions:

RQ_1: Does being pseudonymous online affect levels of self-disclosure as compared to individuals whose identity is known?

RQ_2: How do others' levels of self-disclosure affect their judgments of levels of self-disclosure in positive messages in conversations?

RQ_3: How do others' levels of self-disclosure affect their judgments of levels of self-disclosure in negative messages in conversations?

Expressing extreme opinions is viewed as another behavior like self-disclosure that increases with anonymity or pseudonymity. Davenport (2002) argued that online anonymity allowed individuals to not be held accountable for the nasty and extreme opinions they express. This would seem to imply that online anonymity makes individuals feel more comfortable expressing nasty and extreme opinions. However, individuals are equally willing to share opinions online and in real life. Liu and Fahmy (2011) determined that as sharing opinions online increases, sharing opinions in real life increases. Thus, anonymity is not a factor in sharing opinions, as individuals are equally willing to share opinions online where their identities are not known and in real life where their identities are known. This leads to the second set of research questions:

RQ_4: Does being pseudonymous online lead to an increase in expression of extreme opinions as compared to individuals whose identity is known?

RQ_5: How does others' frequency of expression of extreme opinions affect their judgments about expression of extreme opinions in positive messages in conversations?

RQ6: How does others' frequency expression of extreme opinions affect their judgments about expression of extreme opinions in negative messages in conversations?

Li (2006; 2007) concluded that a large number of young students were engaging in cyberbulling and being victims of cyberbullying. Based on the research and the logic involved in extending findings dealing with anonymity to pseudonymity because anonymity and pseudonymity are conceptually similar, there is an indication that behaviors such as self-disclosure and expressing extreme opinions increase with anonymity and pseudonymity and this seems to be the case for emotional flaming as well. However, anonymity is not the sole cause of flaming. Lapidot-Lefler and Barak (2012) noted that a lack of eye contact was the main contributor to the negative effects of flaming out of the three independent variables. This shows that anonymity is not the chief contributor of flaming and leads to the third set of research questions:

RQ7: Does being pseudonymous online lead to an increase in frequency of emotional flaming as compared to individuals whose identity is known?

RQ8: How does others' frequency of emotional flaming affect their judgments of emotional flaming differ in positive messages in conversations?

RQ9: How does others' frequency of emotional flaming affect their judgments of emotional flaming differ in negative messages in conversations?

Clavio (2008) claimed that anonymity allowed individuals to be more comfortable expressing the way they truly felt about their team. This results in higher levels of socialization taking place. End (2001) indicated that anonymity in sports message boards enabled fans to use them to relish in the success of their team and simultaneously bash

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their opponents and opponents' fans. The result is feeling more connected to the team and other fans. Since the two major themes of fandom of forming social relationships with fellow fans of a favorite team and feeling a strong connection with a favorite team increase with anonymity, fandom also increases with anonymity. However, anonymity on sports message boards can have a negative impact on sports fandom though as well. Cleland (2013) determined that online sites such as sports message boards allow racist thoughts to circulate, in part because of online anonymity and individuals feeling the power to say what they want because their identity is not revealed. This leads to the fourth set of research questions:

RQ_{10}: Does being pseudonymous online affect levels of fandom as compared to individuals whose identity is known?

RQ_{11}: How do others' levels of fandom affect their judgments of fandom in positive messages in conversations?

RQ_{12}: How do others' levels of fandom affect their judgments of fandom in negative messages in conversations?

CHAPTER II

RESEARCH METHODOLOGY

Participants

A total of 137 students completed the survey with 60 male (43.8%) and 77 female (56.2%) respondents. The mean age of the respondents was 20.61 years of age ($SD =$ 2.30), with a range from 18 to 32 years old. In terms of the year in school distribution among the respondents, 48 were seniors (35%), 39 were juniors (28.5%), 36 were freshmen (26.3%), 7 were master's students (5.1%), 5 were sophomores (3.6%), and 2 were doctoral students (1.5%). In terms of the racial/ethnic distribution among the respondents, 115 were Caucasian (83.9%), 4 were categorized as other (2.9%), 3 were African American (2.2%), 2 were Asian/Pacific Islander (1.5%), 2 were Bi-racial/Mixed (1.5%), and 1 was Native American (.7%).

The study consisted of both quantitative survey data and a content analysis. The criterion for participating in the study was that respondents must be at least 18 years of age at the time of the study. Access to the communication research pool in which the survey is located was granted to all students currently enrolled in a communication course at the university. After completion of the survey, some students who took the survey on the research pool were given the opportunity to receive extra credit for their participation. The survey asked questions dealing with the respondents' self-disclosure, extreme opinions, emotional flaming, and fandom, as well as their fan board tendencies.

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Respondents were asked to answer questions dealing with the four variables in response to two conversations they will read. A content analysis was employed to examine the frequency of the four variables and the relationships between those variables and pseudonymity in a national sports message board. The rationale for employing a content analysis in addition to the survey was to have the ability to examine the four variables and pseudonymity in an actual sports message board environment, and not only in a hypothetical sports message board environment, with the two conversations in the survey.

Procedures

Quantitative Survey

The survey was administered through a secure web-based software program called SelectSurvey. Students were first asked to answer questions dealing with comparing their own self-disclosure, expressing extreme opinions, emotional flaming, and fandom between situations when their identity and real name were known and instances when their identity and real name were not known. Next, respondents read two competing sports message board scenarios, one including a positive message and the other including a negative message, and answered the questions that followed. The *Pseudonymity Scale* consisted of questions specifically designed to measure self-disclosure, expressing extreme opinions, emotional flaming, and fandom. Students were also asked to answer seven questions dealing with fan board tendencies, such as how often they posted pseudonymously on sports message boards and their frequency of self-disclosure, expressing extreme opinions, and emotional flaming on sports message boards. Lastly, individual demographic information was collected to aggregate participant characteristics. The purpose of asking students to answer questions dealing

with their own self-disclosure, expression of extreme opinions, emotional flaming, and fandom was to determine the effect of their own behaviors on their observations in the two conservations they read in the survey. For instance, individuals that do not frequent sports message boards may have responded differently to the two conversations in the survey than people who visit sports message boards on a regular basis. The purpose of including one conversation in the survey with a positive message and the other including a negative message was to have the ability to compare and contrast the respondents' responses to the self-disclosure, extreme opinions, and emotional flaming between the positive message and negative message.

Content Analysis

The content analysis consisted of utilizing a national sports message board to get the most representative sample possible from all over the country, rather than using a local sports message board or only focusing on a small region of the country. The sports message board utilized was the footballsfuture.com National Football League message board. The NFL was chosen because that was one of the sports in-season during the time of the content analysis. The choice was between college football and the National Football League because those are the two most popular sports during the fall sports season. Ultimately, the NFL was picked because of the decision to focus on the Adrian Peterson child abuse incident. The decision was made to focus on the Adrian Peterson incident rather than the domestic abuse incident involving Ray Rice because there are individuals on both sides of the fence when it comes to the child abuse issue as some individuals feel that spanking a child is an acceptable form of discipline, while other individuals feel that spanking a child is going too far and is child abuse. On the other

hand, almost all individuals agree that domestic abuse is unacceptable. Data were analyzed using the summative method of content analysis, which involves counting content (Hsieh & Shannon, 2005). The content being examined in this particular content analysis were comments associated with the variables in the study including expression of extreme opinions, emotional flaming, fandom, and self-disclosure. Any comments associated with any of the variables in the study were counted and all comments associated with the variables were tallied up. The goal of the summative method of content analysis is to understand the usage of the words and phrases, understand the meaning of the content, and interpret the content (Hsieh & Shannon, 2005). The goal of this particular content analysis was to understand the usage of the words and phrases dealing with expressing extreme opinions, emotional flaming, fandom, and self-disclosure in the message board's pseudonymous environment compared to when one's identity is known. Understanding the content associated with the study's four variables in the message board's pseudonymous environment compared to when one's identity is known helps to answer the research questions. The research questions explore whether each of the four variables are more prevalent in a pseudonymous environment or when one's identity is known. Thus, the content was examined in an effort to look for either an increase or decrease in self-disclosure, expressing extreme opinions, fandom, and emotional flaming associated with pseudonymity compared to one's identity being known. The initial guidelines for the study were that it would examine no more than 1,000 messages beginning on the day that the incident occurred and concluding no later than a week following the date of the incident occurring from both the Vikings and NFL General subforums on the message board. The purpose of examining both the Vikings

and NFL General subforums was to compare a tight community (close-knit community with fans of the same team) and loose community (non-close-knit community with fans of different teams).

Measures

The survey items were developed specifically for this study. The four scales specifically examined variables concerning self-disclosure, expressing extreme opinions, emotional flaming, and fandom. The first scale was entitled *Self-Disclosure* with a total of 16 items. An example of a self-disclosure survey item was "I would feel more comfortable self-disclosing information when my real name and identity are not known than when they are." The second scale was entitled *Expressing Extreme Opinions* with a total of 14 items. An example of an expressing extreme opinions survey item was "I would prefer to be more opinionated when my real name and identity are not known than when they are." The third scale was entitled *Emotional Flaming* with a total of 14 items. An example of an emotional flaming survey item was "I would be more likely to engage in name-calling when my real name and identity are not known than when they are." The fourth scale was entitled *Fandom* with a total of six items. An example of a fandom survey item was "I would feel a stronger connection to something that I am interested in when being part of an online message board community in which pseudonyms are utilized with other individuals who have the same interest." In the end, 50 scaled items were included on the survey instrument along with 11 items asking about message board tendencies and demographic information. The survey items were arranged on a 5-point Likert scale, asking students to indicate their level of agreement or disagreement with the

items from 1 (*strongly disagree*) to 5 (*strongly agree*) or their frequency of behavior from 1 (*never*) to 5 (*always*). See Appendix for the complete survey instrument.

Exploratory factor analysis (EFA) was utilized because of a supposed relationship between survey items and variables, and particular survey items were grouped together based on their association with certain variables. The use of EFA allowed the variables to remain separated while simultaneously allowing subscales or factors to be potentially developed within each variable. An iterative data reduction process was utilized during the EFA with the four scales in the survey using SPSS. Principle components factoring using direct Oblimin rotation was used to identify factors within the four scales and eliminate survey items that did not load onto a factor. New EFA procedures were conducted as survey items were eliminated until an adequate final factor solution was reached. The KMO measure was examined as each EFA procedure was conducted to ensure that a criteria of .6 or greater was met and the Bartlett's test was examined to verify that the chi-square was significant. The initial eigenvalues were examined for each EFA procedure for factors that exceeded eigenvalues of 1.00 upon visual inspection of the scree plot. The rotated factor matrix was examined to determine which survey items did meet a factor loading criteria of .6 or greater on the primary factor and a .4 or lower loading on the secondary factor. The item with the lowest primary factor loading that did not meet the 60/40 criteria was removed from the solution and a new EFA procedure was conducted.

Data Analysis

A series of correlation procedures were calculated to test each of the research questions. Correlation analysis reveals the degree to which two variables are associated.

Variables are positively correlated if they both increase at the same time and the correlation coefficient is between 0 and 1. On the other hand, variables are negatively correlated if one increases as the other decreases and the correlation coefficient is between 0 and -1. Thus, in this study correlation analysis indicated the degree to which how frequently an individual engages in self-disclosure while utilizing a pseudonym was associated with the other eight variables. This correlation procedure addressed the first research question in each set of three research questions that asked if being pseudonymous online leads to an increase in expression of extreme opinions, self-disclosure, emotional flaming, and fandom as compared to individuals whose identity is known. The next correlation procedure indicated the degree to which one's judgments of positive messages in conversations was associated with the other eight variables. This correlation procedure addressed the second research question in each set of three research questions that asked how others' expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom affect their judgments of expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom in positive messages in conversations. The next correlation procedure indicated the degree to which one's judgments of negative messages in conversations was associated with the other eight variables. This correlation procedure addressed the third research question in each set of three research questions that asked how others' expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom affect their judgments of expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom in negative messages in conversations. The level of significance or alpha was set to .05 for all statistical tests in accordance with common practices. No adjustments were

made to alpha for the statistical procedures employed in the study, given that the results of the study do not endanger participants in any direct manner and there was no conceivable reason to adjust alpha to a more conservative level. Scale reliability was calculated for each scale using Cronbach's alpha coefficient of reliability.

CHAPTER III

QUANTITATIVE SURVEY RESULTS

Measurement Validity and Reliability

Behavior Scale

Through an iterative EFA process, three of the original 14 items were eliminated because they had poor primary factor loadings. The final EFA procedure for the Behavior scale produced an acceptable four-factor solution. Both the KMO measure (.680) and Bartlett's test [χ^2 = 366.107 (55), p < .001] were acceptable. The four-factor solution, consisting of three items in the first factor, four items in the second factor, and two items apiece in the third and fourth factors, collectively explained 63.930% of the variance in behavior. See Table 1 for the factor loadings.

The first factor, which was labeled the Aggressive Behaviors subscale, consisted of three items dealing with aggressive message board behaviors such as advocating extreme negative opinions, engaging in emotional flaming, and being critical of others' opinions. The first factor explained 26.013% of the variance with a 2.861 eigenvalue. The second factor, which was labeled the Identity Comfort subscale, consisted of four items related to individuals feeling comfortable with their real name being known. The second factor explained 17.701% of the variance with a 1.947 eigenvalue. The third factor, which was labeled the Self-Disclosure subscale, consisted of two items related to revealing information about oneself. The third factor explained 10.838% of the variance

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with a 1.192 eigenvalue. The fourth factor, which was labeled the Fandom subscale,

consisted of two items dealing with individuals feeling a bond with one another and

feeling a connection with a sports team. The fourth factor explained 9.377% of the

variance with a 1.031 eigenvalue.

Table 1

Factor Loadings for Behavior Scale

Survey Item	AB	IC	SD	FD
13. I am more critical of others' opinions...	.777	.020	.068	-.035
12. I am more likely to express extreme negative opinions...	.759	.020	.218	.022
7. I would be more likely to engage in name-calling...	.661	-.046	-.061	-.175
6. I feel more comfortable being opinionated... [Recoded]	.122	.790	-.143	-.028
2. I disclose information more often in situations... [Recoded]	.182	.719	-.154	.115
14. I am more likely to express my disagreement of others' opinions... [Recoded]	-.216	.658	.130	-.033
8. I would feel more comfortable engaging in name-calling... [Recoded]	-.303	.631	.275	-.011
4. I disclose personal information more often...	.063	-.210	.803	.028
3. I would prefer to disclose personal information...	.191	.174	.728	-.087
9. I feel a stronger connection to something that I am interested in when being part of an online message board...	.062	-.008	-.046	-.874
10. I feel a strong bond with other individuals who utilize pseudonyms in an online message board...	-.016	-.007	.034	-.881
Eigenvalue	2.861	1.947	1.192	1.031
% of Variance	26.013	17.701	10.838	9.377
Cronbach's Alpha	.682	.679	.520	.735

Note. Underlined factor coefficients show acceptable factor loadings for the corresponding items and factors. AB is Aggressive Behaviors. IC is Identity Comfort. SD is Self-Disclosure. FD is Fandom.

The final four-factor solution produced an overall alpha coefficient reliability of

.57 for the scale. The Aggressive Behaviors factor (α = .68) and the Identity Comfort

factor (α = .67) each produced minimally acceptable reliabilities. The Self-Disclosure

factor (α = .52) produced an unacceptable reliability and the Fandom factor (α = .73)

produced a respectable reliability.

Conversation One Scale

Through an iterative EFA process, six of the original 18 items were eliminated

because they had poor primary factor loadings. The final EFA procedure for the

Conversation One scale produced an acceptable five-factor solution. Both the KMO

measure (.651) and Bartlett's test [$\chi^2 = 435.196$ (66), $p < .001$] were acceptable. The five-

factor solution, consisting of three items apiece in the first and second factors and two

items apiece in the third, fourth, and fifth factors, collectively explained 71.308% of the

variance in the Conversation One scale. See Table 2 for the factor loadings.

The first factor, which was labeled the Self-Disclosure Effectiveness subscale,

consisted of three items related to whether or not revealing information about oneself

caused the conversation to come to an end quicker than otherwise and whether or not it

was a successful tactic. The first factor explained 23.057% of the variance with a 2.767

eigenvalue. The second factor, which was labeled the Aggressive Behaviors subscale,

consisted of three items related to feeling comfortable or preferring to engage in name-

calling or advocating extreme opinions. The second factor explained 18.528% of the

variance with a 2.223 eigenvalue. The third factor, which was labeled the Fandom

subscale, consisted of two items dealing with individuals feeling a bond with one another

and feeling a connection with a sports team. The third factor explained 11.171% of the

variance with a 1.341 eigenvalue. The fourth factor, which was labeled the Comment

Appropriateness subscale, consisted of two items dealing with whether or not the

comment was too opinionated and whether or not the comment was suitable to be posted to a message board. The fourth factor explained 9.566% of the variance with a 1.148 eigenvalue. The fifth factor, which was labeled the Self-Disclosure Appropriateness subscale, consisted of two items dealing with whether or not revealing information about oneself was too personal and whether or not it was suitable to be posted to a message board. The fifth factor explained 8.985% of the variance with a 1.078 eigenvalue.

The final five-factor solution produced an overall alpha coefficient reliability of .57 for the scale. The Self-Disclosure Effectiveness factor ($\alpha = -.44$) produced an unacceptable reliability. The Aggressive Behaviors factor ($\alpha = .67$) produced a minimally acceptable reliability. The Fandom factor ($\alpha = .81$) and the Self-Disclosure Appropriateness factor ($\alpha = .82$) produced very good reliabilities. The Comment Appropriateness factor ($\alpha = .61$) produced an undesirable reliability.

Conversation Two Scale

Through an iterative EFA process, three of the original 18 items were eliminated because they had poor primary factor loadings. The final EFA procedure for the Conversation Two scale produced an acceptable five-factor solution. Both the KMO measure (.691) and Bartlett's test [$\chi^2 = 574.877$ (105), $p < .001$] were acceptable. The five-factor solution, consisting of four items apiece in the first and second factors, three items in the third factor, and two items apiece in the fourth and fifth factors, collectively explained 65.556% of the variance in the Conversation Two scale. See Table 3 for the factor loadings.

Table 2

Factor Loadings for Conversation One Scale

Survey Item	SDE	AB	FD	CA	SDA
22. SamIsTheBest1234's self-disclosure caused the conversation to come to an end quicker...	.727	-.012	.096	-.216	.050
23. SamIsTheBest1234's self-disclosure was ineffective.	.627	-.029	.102	.222	.054
29. SamIsTheBest1234 is less likely to engage in self-disclosure...	-.726	-.115	.136	-.024	.042
26. SuperFan111 called SamIsTheBest1234 an idiot because he or she felt more comfortable engaging in name-calling...	.051	.865	-.133	-.023	.061
27. SuperFan111 prefers to engage in name-calling in this online message board...	-.117	.726	.221	-.186	.016
24. SuperFan111's first comment was made because he or she felt more comfortable being more opinionated...	.180	.686	.056	.292	-.043
20. As a result of this conversation, SamIsTheBest1234, SuperFan111 and the other members of this sports message board community feel a stronger connection...	-.009	-.008	.908	.027	.038
21. As a result of this conversation, SamIsTheBest1234, SuperFan111 and the other members of this sports message board community feel a stronger bond...	.054	.022	.905	-.001	-.046
15. SuperFan111's first comment regarding West High School being one of the most cheating schools in the state is too opinionated.	-.148	.099	.056	.891	.001
16. SuperFan111's first comment shouldn't be posted on the message board.	.206	-.169	-.065	.681	.175
18. SamIsTheBest1234's self-disclosure was too personal.	.012	.001	-.060	-.094	.949
19. SamIsTheBest1234's self-disclosure shouldn't be posted on the message board.	-.029	.053	.065	.129	.884
Eigenvalue	2.767	2.223	1.341	1.148	1.078
% of Variance	23.057	18.528	11.171	9.566	8.985
Cronbach's Alpha	-.447	.676	.814	.612	.825

Note. Underlined factor coefficients show acceptable factor loadings for the corresponding items and factors. SDE is Self-Disclosure Effectiveness. AB is Aggressive Behaviors. FD is Fandom. CA is Comment Appropriateness. SDA is Self-Disclosure Appropriateness.

Table 3

Factor Loadings for Conversation Two Scale

Survey Item	PA	AB	AEO	IC	FD
34. NumberOneFan100's first comment shouldn't be posted...	.853	-.089	-.031	.124	.002
33. NumberOneFan100's first comment is too opinionated.	.836	.061	.118	.230	-.016
37. NumberOneFan100's self-disclosure shouldn't be posted on the message board.	.782	-.052	.004	-.171	.014
45. GoTeam1 prefers to engage in name-calling...	.015	.799	.247	-.041	.157
46. NumberOneFan100 engaged in self-disclosure...	-.005	.726	.125	.046	.095
44. GoTeam1 called NumberOneFan100 an asshat because...	-.150	.627	-.116	.134	-.080
49. GoTeam1 is less likely to express his or her disagreement...	.038	.022	.753	.202	-.074
43. NumberOneFan100 is less likely to be opinionated...	-.176	.101	.722	.058	-.038
50. NumberOneFan100 prefers to make extremely positive comments...	-.121	.012	-.716	.309	.094
47. NumberOneFan100 is less likely to engage in self-disclosure...	-.180	-.314	.273	.720	.005
42. NumberOneFan100's first comment was made because...	.302	.281	-.309	.615	-.072
35. GoTeam1 calling NumberOneFan100 an asshat was not warranted.	.012	.001	-.060	-.094	.949
36. NumberOneFan100's self-disclosure was too personal.	-.029	.053	.065	.129	.884
39. As a result of this conversation, GoTeam1, NumberOneFan100 and the other members of this sports message board community feel...	.044	-.080	.022	-.073	.861
38. As a result of this conversation, GoTeam1, NumberOneFan100 and the other members of this sports message board community feel...	-.024	.168	-.171	.111	.769
Eigenvalue	3.255	2.562	1.587	1.309	1.120
% of Variance	21.701	17.082	10.580	8.727	7.466
Cronbach's Alpha	.835	.693	-.214	.135	.596

Note. Underlined factor coefficients show acceptable factor loadings for the corresponding items and factors. PA is Post Appropriateness. AB is Aggressive Behaviors. AEO is Advocating Extreme Opinions. IC is Identity Comfort. FD is Fandom.

The first factor, labeled the Post Appropriateness subscale, consisted of four items related to whether or not message board posts were too opinionated and personal or were not suitable to be posted. The first factor explained 21.701% of the variance with a 3.255 eigenvalue. The second factor, labeled the Aggressive Behaviors subscale, consisted of four items dealing with aggressive behaviors such as name-calling. The second factor explained 17.082% of the variance with a 2.562 eigenvalue. The third factor, labeled the Advocating Extreme Opinions subscale, consisted of three items dealing with individuals voicing strong viewpoints. The third factor explained 10.580% of the variance with a 1.587 eigenvalue. The fourth factor, labeled the Identity Comfort subscale, consisted of two items related to individuals feeling comfortable with their real name being known. The fourth factor explained 8.727% of the variance with a 1.309 eigenvalue. The fifth factor, labeled the Fandom subscale, consisted of two items dealing with individuals feeling a bond with one another and feeling a connection with a sports team. The fifth factor explained 7.466% of the variance with a 1.120 eigenvalue.

The final five-factor solution produced an overall alpha coefficient reliability of .39 for the scale. The Post Appropriateness factor (α = -.83), the Advocating Extreme Opinions factor (α = .13), and the Fandom factor (α = .59) produced unacceptable reliabilities. The Aggressive Behaviors factor (α = .69) produced a minimally acceptable reliability and the Identity Comfort factor (α = .82) produced a very good reliability.

Message Board Disclosure Scale

The final EFA procedure for the Message Board Disclosure scale produced an acceptable single-factor solution. Both the KMO measure (.715) and Bartlett's test [χ^2 = 264.313 (3), p < .001] were acceptable. The single-factor solution, consisting of three

items dealing with the frequency of self-disclosure while utilizing a pseudonym, explained 82.788% of the variance in the Message Board Disclosure scale with a 2.484 eigenvalue. The final single-factor solution produced an overall alpha coefficient reliability of .89 for the scale. See Table 4 for the factor loadings.

Table 4

Factor Loadings for Message Board Disclosure Scale

Survey Item	MBD
51. How often do you post on message boards using a pseudonym (username or other identifier that is not your real name)?	.940
52. How often do you disclose information about yourself on message boards?	.918
53. How often do you disclose personal information about yourself on message boards?	.870
Eigenvalue	2.484
% of Variance	82.788
Cronbach's Alpha	.891

Note. Underlined factor coefficients show acceptable factor loadings for the corresponding items and factors. MBD is Message Board Disclosure.

Correlations

A series of Pearson product-moment correlation coefficients were computed to assess the bivariate relationships between several variables: how frequently an individual engages in self-disclosure while utilizing a pseudonym, how frequently one is extremely opinionated, how often one posts, engages in name calling, engages in aggressive behaviors, feels comfortable with self-disclosing one's own identity, one's levels of fandom, and one's judgments of negative and positive messages in conversations.

In terms of how frequently an individual engages in self-disclosure while utilizing a pseudonym, there was a positive, significant correlation with how often one posts $(r(136) = .47, p < .05)$, one's levels of fandom $(r(136) = .22, p < .05)$, how frequently one

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engages in name-calling ($r(136) = .41, p < .05$), and how often one is extremely opinionated ($r(136) = .46, p < .05$). There was a negative, non-significant correlation between how frequently an individual engages in self-disclosure while utilizing a pseudonym and one's judgments of negative messages in conversations ($r(136) = -.14, p > .05$) and one's judgments of positive messages in conversations ($r(136) = -.05, p > .05$). Additionally, there was a negative, significant correlation between how frequently an individual engages in self-disclosure while utilizing a pseudonym and feeling comfortable with self-disclosing one's own identity ($r(136) = -.24, p < .05$). There was also a positive, non-significant correlation between how frequently an individual engages in self-disclosure while utilizing a pseudonym and how often one engages in aggressive behaviors ($r(136) = .12, p > .05$).

In terms of one's judgments of negative messages in conversations, there was a positive, significant correlation with how often one engages in aggressive behaviors ($r(143) = .20, p < .05$) and one's judgments of positive messages in conversations ($r(137) = .55, p < .05$). There was a positive, non-significant correlation between one's judgments of negative messages in conversations and how often one engages in name calling ($r(136) = .02, p > .05$), how often one is extremely opinionated ($r(136) = .04, p > .05$), and one's levels of fandom ($r(143) = .12, p > .05$). Additionally, there was a negative, non-significant correlation between one's judgments of negative messages in conversations and how often one posts ($r(136) = -.01, p > .05$) and feels comfortable with self-disclosing one's own identity ($r(143) = -.12, p > .05$).

In terms of one's judgments of positive messages in conversations, there was a positive, significant correlation with how often one engages in aggressive behaviors

($r(137) = .22, p < .05$). There was a positive, non-significant correlation between one's judgments of positive messages in conversations and how often one engages in name-calling ($r(136) = .04, p > .05$), how often one is extremely opinionated ($r(136) = .09, p > .05$), how often one posts ($r(136) = .022, p > .05$), and one's levels of fandom ($r(137) = .12, p > .05$). Additionally, there was a negative, significant correlation between one's judgments of positive messages in conversations and feeling comfortable with self-disclosing one's own identity ($r(137) = -.16, p < .05$). See Table 5 for the bivariate correlations.

Independent Samples *t*-Tests

Independent samples *t*-tests were calculated to compare the mean scores of males and females on how often they engage in name-calling, how often they are extremely opinionated, how often they post on message boards, how frequently they engage in aggressive behaviors, how comfortable they feel in self-disclosing their own identity, their levels of fandom, judgments of negative and positive messages in conversations, and frequency of self-disclosure while utilizing a pseudonym.

Table 5

Bivariate Correlations

	DC	NC	EO	PF	AB	IC	FD	NM
Name-calling	.744*	-----						
Extreme Opinions	.782*	.682*	-----					
Posting Frequency	.670*	.685*	.701*	-----				
Aggressive Behaviors	.116	.259*	.108	.031	-----			
Identity Comfort	-.180*	-.165	-.124	-.207*	-.174*	-----		
Fandom	.279*	.123	.209*	.119	.415*	-.126	-----	
Negative Messages	-.124	.028	.043	-.018	.201	-.129	.128	-----
Positive Messages	.017	.047	.090	.022	.221*	-.167*	.127	.558*

Note. The number in each cell is the Pearson correlation coefficient. DC is Disclosure. NC is Name-calling. EO is Extreme Opinions. PF is Posting Frequency. AB is Aggressive Behaviors. IC is Identity Comfort. FD is Fandom. NM is Negative Messages. * $p < .05$.

A significant difference was found between the two groups for name-calling ($t(102.91) = 3.89, p < .05$). Male participants had significantly higher mean scores for name-calling ($M = 2.07, SD = 1.07$) than did female participants ($M = 1.43, SD = .76$). A significant difference was found between males and females for advocating extreme opinions ($t(113.77) = 2.99, p < .05$). Male participants had significantly higher mean scores for advocating extreme opinions ($M = 2.33, SD = 1.13$) than did female participants ($M = 1.79, SD = .93$). A significant difference was found between males and

females for posting frequency ($t(109.15) = 2.97$, $p < .05$). Male participants had

significantly higher mean scores for posting frequency ($M = 2.17$, $SD = 1.13$) than did

female participants ($M = 1.64$, $SD = .88$). No significant difference was found between

males and females for how frequently they engage in aggressive behaviors ($t(135) = 1.26$,

$p > .05$). There was no significant difference in mean scores for how frequently they

engage in aggressive behaviors between male participants ($M = 3.24$, $SD = .83$) and

female participants ($M = 3.06$, $SD = .84$). No significant difference was found between

males and females for how comfortable they feel in self-disclosing their own identity

($t(135) = -1.41$, $p > .05$). There was no significant difference in mean scores for how

comfortable they feel in self-disclosing their own identity between male participants ($M =$

3.10, $SD = .68$) and female participants ($M = 3.28$, $SD = .75$). No significant difference

was found between males and females for their levels of fandom ($t(135) = -.69$, $p > .05$).

There was no significant difference in mean scores for their levels of fandom between

male participants ($M = 3.26$, $SD = .91$) and female participants ($M = 3.37$, $SD = .91$). No

significant difference was found between males and females for judgments of negative

messages in conversations ($t(135) = 1.58$, $p > .05$). There was no significant difference in

mean scores for judgments of negative messages in conversations between male

participants ($M = 3.49$, $SD = .44$) and female participants ($M = 3.37$, $SD = .40$). No

significant difference was found between males and females for judgments of positive

messages in conversations ($t(135) = -.07$, $p > .05$). There was no significant difference in

mean scores for judgments of positive messages in conversations between male

participants ($M = 3.29$, $SD = .38$) and female participants ($M = 3.29$, $SD = .42$). No

significant difference was found between males and females for frequency of self-

disclosure while utilizing a pseudonym ($t(135) = .13$, $p > .05$). There was no significant difference in mean scores for frequency of self-disclosure while utilizing a pseudonym between male participants ($M = 2.59$, $SD = .48$) and female participants ($M = 2.58$, $SD = .39$).

CHAPTER IV

CONTENT ANALYSIS RESULTS

Emergence of Themes

In many previous studies, researchers investigated the anonymity of message

boards in relation to general message board behaviors such as self-disclosure, expressing

extreme opinions, and emotional flaming (Danescu-Niculescu-Mizil et al., 2009;

Davenport, 2002; Joinson, 2001; Kacimi et al., 2009; Kilner & Hoadley, 2005; Yun &

Park, 2011). It is not as common for studies to look specifically at sports message boards

and examine both general message board behaviors that apply to various types of

message boards and ideas such as fandom that are specific to sports message boards.

Thus, both general message board behaviors and ideas specific to sports message boards

were combined to determine the four variables for the study including self-disclosure,

advocating extreme opinions, emotional flaming, and fandom. Since self-disclosure,

advocating extreme opinions, emotional flaming, and fandom are the four variables

examined in the study, deductive, rather than inductive themes were utilized because

these deductive themes help to answer the research questions more effectively. It is

acceptable to include deductive themes in a qualitative content analysis (Patton, 2002).

Generating deductive themes based on previous ideas is useful for qualitative research

(Berg, 2001). Thus, it is logical to utilize the study's four variables of self-disclosure,

advocating extreme opinions, emotional flaming, and fandom for the deductive themes

in the content analysis. Therefore, the four deductive themes in which the message board posts on http://www.footballsfuture.com about the Adrian Peterson child abuse incident were placed into included self-disclosure, advocating extreme opinions, emotional flaming, and fandom. The most frequently occurring theme in the message board posts was advocating extreme opinions with a total of 516 unitized comments. The second most frequently occurring theme was fandom with a total of 378 unitized comments. The third most frequently occurring theme was emotional flaming with a total of 57 unitized comments. Finally, the fourth most frequently occurring theme was self-disclosure with a total of 34 unitized comments. See Table 6 for frequency counts.

Table 6

Frequency of Themes

Theme	Total Comments	Percentage
Advocating Extreme Opinions	516	52.39%
Fandom	378	38.38%
Emotional Flaming	57	5.79%
Self-Disclosure	34	3.45%

Note. There were a total of 985 unitized comments across the four themes. Advocating extreme opinions and fandom were the most prevalent themes, while emotional flaming and self-disclosure were less prevalent themes.

There were a total of 792 message board posts examined from 581 different individuals and 504 out of the 581 different individuals were frequent users. Thus, the majority (86.75%) of individuals advocating extreme opinions, engaging in emotional flaming, engaging in self-disclosure, and exhibiting fandom were frequent users. A frequent user was defined as a message board poster with more than 1,000 posts on http://www.footballsfuture.com. Out of the 792 message board posts, 143 of the posts

came from the general NFL board on http://www.footballsfuture.com and 649 posts came

from the Minnesota Vikings board on http://www.footballsfuture.com. Thus, the majority

(81.94%) of the message board posts came from the Minnesota Vikings board with the

minority (18.06%) coming from the NFL board. A total of 104 different individuals

accounted for the 143 posts on the general NFL board and 476 different individuals

accounted for the 649 posts on the Minnesota Vikings board. A total of 90 people out of

the 104 different individuals on the general NFL board were frequent users and 414

people out of the 476 different individuals on the Minnesota Vikings board were frequent

users.

Extreme Opinions

The most frequently occurring theme in the message board posts was advocating

extreme opinions with a total of 516 unitized comments from 395 different individuals

with 93 comments coming from the general NFL board and 423 comments coming from

the Minnesota Vikings board. Out of the 395 different individuals, 342 people were

frequent users. A total of 71 different individuals accounted for the 93 comments on the

general NFL board and 324 different individuals accounted for the 423 comments on the

Minnesota Vikings board. A total of 62 people out of the 71 different individuals on the

general NFL board were frequent users and 280 people out of the 324 different

individuals on the Minnesota Vikings board were frequent users. Expressing extreme

opinions refers to the extremity level of advocated opinions, ranging from very opinioned

to neutral or indifferent. Adrian Peterson's child abuse incident was a controversial topic

on the message board and resulted in many opinionated comments. Three subcategories

emerged within the theme of advocating extreme opinions. One subcategory consisted of

comments stating that Adrian Peterson inappropriately disciplined his child, the second subcategory consisted of comments where a stance was not taken whether or not Adrian Peterson appropriately or inappropriately disciplined his child, and the third subcategory consisted of comments that Adrian Peterson appropriately disciplined his child.

A total of 87 comments from 66 different individuals were included in the first subcategory of comments stating that Adrian Peterson inappropriately disciplined his child with 15 comments coming from the general NFL board and 72 comments coming from the Minnesota Vikings board. A total of 12 different individuals accounted for the 15 comments from the general NFL board and 54 individuals accounted for the 72 comments from the Minnesota Vikings board. A total of 319 comments from 245 different individuals were included in the second subcategory of comments where a stance was not taken whether or not Adrian Peterson appropriately or inappropriately disciplined his child with 57 comments coming from the general NFL board and 262 comments coming from the Minnesota Vikings board. A total of 44 different individuals accounted for the 57 comments from the general NFL board and 201 different individuals accounted for the 262 comments from the Minnesota Vikings board. A total of 110 comments from 84 different individuals were included in the third subcategory of comments stating that Adrian Peterson appropriately disciplined his child with 21 comments coming from the general NFL board and 89 comments coming from the Minnesota Vikings board. A total of 16 different individuals accounted for the 21 comments on the general NFL board and 68 different individuals accounted for the 89 comments on the Minnesota Vikings board.

One instance of a message board poster advocating an extreme opinion that Adrian Peterson inappropriately disciplined his child is when *SnA ExclusiVe* stated, "Oh man....the one thing that's worse than beating a woman, and of all people, Adrian Peterson...oh man...." *SnA ExclusiVe* advocated an extreme opinion that Adrian Peterson inappropriately disciplined his child by expressing that the way Adrian Peterson abused his child is the one thing that is worse than beating a woman. An instance of a message board poster advocating an extreme opinion that did not take a stance in terms of whether or not Adrian Peterson appropriately or inappropriately disciplined his child is when *cddolphin* said, "Pictures of a child's injuries proves nothing, unless there was a police report as well that points a finger at Peterson." *Cddolphin* advocated an extreme opinion by expressing that photographs of a child's injuries is not adequate proof of Adrian Peterson's child abuse without a police report indicating that Peterson is the perpetrator of child abuse. *Cddolphin*'s comment did not make a determination as to whether or not Adrian Peterson inappropriately or appropriately disciplined his child.

An instance of a message board poster advocating an extreme opinion that Adrian Peterson appropriately disciplined his child is when *Titans_Matt* said,

I'm sure I'm in the minority here, but I have no problem whatsoever with what Adrian Peterson did. Being from the South, being disciplined by "picking your own switch" is commonplace. The majority of kids I have come into contact with these days are completely disrespectful because of lack of discipline from their parents. With the proper discipline comes respect for others, and I'm a firm believer in that. Peterson is one of the few NFL players that lives a good life as a respectable citizen, so I hope he doesn't get suspended for this.

Titans_Matt advocated an extreme opinion that Adrian Peterson appropriately disciplined his child by stating that being whipped with a switch in the South is a frequent occurrence and is an appropriate form of discipline to hold children accountable for being respectful to others.

Fandom

The second most frequently occurring theme in the message board posts was fandom with a total of 378 unitized comments from 290 different individuals with 68 comments coming from the general NFL board and 310 comments coming from the Minnesota Vikings board. Out of the 290 different individuals, 251 people were frequent users. A total of 52 different individuals accounted for the 68 comments on the general NFL board and 238 different individuals accounted for the 310 comments on the Minnesota Vikings board. 45 people out of the 52 different individuals on the general NFL board were frequent users and 206 people out of the 238 different individuals on the Minnesota Vikings board were frequent users. Fandom refers to a self-report of how big of a sports fan an individual is. Two subcategories emerged within the theme of fandom. One subcategory deals with comments regarding the impact of Adrian Peterson's child abuse incident on the Minnesota Vikings and the other subcategory deals with comments regarding the impact of Adrian Peterson's child abuse incident on the National Football League. A total of 260 comments from 199 different individuals were included in the first subcategory of comments regarding the impact of Adrian Peterson's child abuse incident on the Minnesota Vikings with 46 comments coming from the general NFL board and 214 comments coming from the Minnesota Vikings board.

A total of 35 different individuals accounted for the 46 comments on the general NFL board and 164 different individuals accounted for the 214 comments on the Minnesota Vikings board. A total of 118 comments from 90 different individuals were included in the second subcategory of comments regarding the impact of Adrian Peterson's child abuse incident on the National Football League with 22 comments coming from the general NFL board and 96 comments coming from the Minnesota Vikings board. A total of 17 different individuals accounted for the 22 comments on the general NFL board and 73 different individuals accounted for the 96 comments on the Minnesota Vikings board. One instance of fandom within a message board post dealing with the impact of Adrian Peterson's child abuse incident on the Minnesota Vikings is when *l3lind golfer* said, "As far as the Vikings football team is concerned this is big, especially if this involves Peterson missing games in the future…If Peterson is able to play I wonder how big of a distraction this will be for the team." *L3lind golfer's* comment is an example of fandom because the poster discussed how the Minnesota Vikings would be affected by Adrian Peterson's absence, as opposed to discussing the issue at hand of Adrian Peterson's child abuse incident. *L3lind golfer* is concerned with Adrian Peterson missing out on playing time with the Vikings and the possible distraction that he will cause for the team.

Another instance of fandom within a message board post dealing with the impact of Adrian Peterson's child abuse incident on the Minnesota Vikings is when *Heimdallr* said, "If AP can't play the Vikings have a couple of decent options to run the ball…Losing AP for even 1 game would be tough though. I don't give the Vikings a change to beat New England without AP." *Heimdallr's* comment is an example of

fandom because as opposed to examining Adrian Peterson's child abuse incident, he or she discussed the impact of Adrian Peterson's absence from the team by examining the Vikings' other running back options. Additionally, *Heimdallr* mentioned that the Vikings' chances in the upcoming game were slim without Adrian Peterson. An instance of fandom within a message board post dealing with the impact of Adrian Peterson's child abuse incident on the National Football League is when *l3lind golfer* said, "Also, with everything going on in the league at this moment this is just another red mark to add to what seems like an unfortunate checklist." *L3lind golfer* is concerned with the black eye that Adrian Peterson caused for the league by abusing his child.

The amount of fandom comments can be partially attributed to the fact that message board moderators encouraged discussion on how Adrian Peterson's child abuse incident would impact the Vikings and the NFL. One of the message board moderators, *domepatrol91* stated, "There is plenty you can discuss: With recent events, how does the NFL react to these allegations? Will the Vikings step in? Should the Vikings step in? Will AP play this week?" and went on to say "What does the depth at RB look like in Minnesota? Can their offense be at all effective without AP? Does Patterson see more snaps at RB?" *Domepatrol91* emphasized that discussion did not have to be limited to Adrian Peterson's child abuse incident itself, but also its impact on the Vikings and the NFL.

There were instances of message board posts containing more than one unitized comment from different themes with the most frequent occurrence being message board posts containing both a fandom and extreme opinion comment. An example of an instance when a message board post contained both a fandom and extreme opinion

comment is when *asgardian* said, "Just because your parents did it to you does not make the act any less serious...Who is the Vikings' second running back and how good is he?" and went on to say "I know the Vikings played the Rams, but I have closed the eyes every time I watch my favorite team, so I did not get much of a look at any subs coming in for him." *Asgardian* advocated an extreme opinion by stating that Adrian Peterson's act of child abuse should not be considered unimportant just because an individual's parents whipped him or her when he or she was young. *Asgardian* also made a fandom comment by prompting discussion about the back-up running back for the Vikings, who would start in place of Adrian Peterson if he were to miss any playing time as a consequence for abusing his child.

Emotional Flaming

The third most frequently occurring theme in the message board posts was emotional flaming with a total of 57 unitized comments from 44 different individuals with 10 comments coming from the general NFL board and 47 comments coming from the Minnesota Vikings board. Out of the 44 different individuals, 38 people were frequent users. A total of eight different individuals accounted for the 10 comments on the general NFL board and 36 different individuals accounted for the 47 comments on the Minnesota Vikings board. A total of seven people out of the 8 different individuals on the general NFL board were frequent users and 31 people out of the 36 different individuals on the Minnesota Vikings board were frequent users. Emotional flaming refers to hostile and insulting actions between individuals such as name-calling. Two subcategories emerged within the theme of emotional flaming. One subcategory consisted of emotional flaming comments dealing with the Adrian Peterson child abuse incident and the other

subcategory consisted of emotional flaming comments not dealing with the Adrian Peterson incident.

A total of 33 comments from 25 different individuals were included in the first subcategory of comments dealing with the Adrian Peterson child abuse incident with five comments coming from the general NFL board and 28 comments coming from the Minnesota Vikings board. A total of four different individuals accounted for the five comments on the general NFL board and 21 different individuals accounted for the 28 comments on the Minnesota Vikings board. A total of 24 comments from 18 different individuals were included in the second subcategory of comments not dealing with the Adrian Peterson incident with five comments coming from the general NFL board and 19 comments coming from the Minnesota Vikings board. A total of three different individuals accounted for the five comments on the general NFL board and 15 different individuals accounted for the 19 comments on the Minnesota Vikings board. One instance of a message board poster engaging in emotional flaming dealing with the Adrian Peterson incident is when *WizardHawk* said, "If this is your idea of 'disciplining' or 'spanking' a 4-yr old, then you're a idiot of epic proportion and I'll leave it at that." *WizardHawk* engaged in emotional flaming by calling another poster an idiot for his or her viewpoints on the Adrian Peterson child abuse incident.

An instance of a message board poster engaging in emotional flaming not dealing with the Adrian Peterson child abuse incident is when *Comit2Xcelence* said, "You are an absolute idiot. Your ability to evaluate talent is one of the worst I've ever encountered." *Comit2Xcelence* engaged in emotional flaming by calling another poster an idiot for his or her ability to evaluate talent. The amount of emotional flaming can be partially

attributed to the fact that this behavior was not tolerated on the message board. One of the message board moderators, *vikingsrule* stated, "There are members who do want to have a positive discussion and you are inhibiting this by continuing to fight battles with other members, who have reminded you of the expectations of this forum." *Vikingsrule* noted that emotional flaming is not tolerated on the message board.

Self-Disclosure

The fourth most frequently occurring theme in the message board posts was self-disclosure with a total of 34 unitized comments from 26 different individuals with six comments coming from the general NFL board and 28 comments coming from the Minnesota Vikings board. Out of the 26 different individuals, 22 people were frequent users. A total of five different individuals accounted for the six comments on the general NFL board and 21 different individuals accounted for the 28 comments on the Minnesota Vikings board. A total of four people out of the five different individuals on the general NFL board were frequent users and 18 people out of the 21 different individuals on the Minnesota Vikings board were frequent users. Self-disclosure refers to revealing information about oneself. No subcategories emerged in the theme of self-disclosure as message board posters revealed that they were whipped when they were young in all 34 comments.

One instance of a message board poster engaging in self-disclosure is when *BurheadTitans* said, "Heck I was whipped with a switch growing up when I misbehaved while staying with my grandparents, crazy to think they could be arrested for it" and went on to say "The worst part was they made me pick the limb and bring it back, and if it wasn't up to snuff they made me go back and pick another." *BurheadTitans* engaged in

self-disclosure because he or she revealed information about him or herself by stating that he or she was whipped with a switch when he or she was young. Another instance of a message board poster engaging in self-disclosure is when another individual revealed that he or she was beaten as a child. *Game3525* said, "I got spanked with the belt when I was a kid, so I should wait for more info before jumping on AD." *Game3525* engaged in self-disclosure by revealing information about him or herself that he or she got spanked with a belt as a child.

CHAPTER V

DISCUSSION

Examining the pseudonymity of sports message boards is an emerging line of research with many of the conversations about sports games that previously occurred in FtF settings now taking place online on message boards. Previous research tended to investigate the anonymity of message boards in relation to general message board behaviors such as self-disclosure, expressing extreme opinions, and emotional flaming (Danescu-Niculescu-Mizil et al., 2009; Davenport, 2002; Joinson, 2001; Kacimi et al., 2009; Kilner & Hoadley, 2005; Yun & Park, 2011). This present study enhances previous research by utilizing a combination of general message board behaviors such as self-disclosure, expressing extreme opinions, and emotional flaming and variables relating specifically to sports message boards such as fandom to examine the pseudonymity of sports message boards. The study argued that pseudonymity is a more accurate term than anonymity for describing sports message boards because anonymity does not generally occur in sports message boards as usernames are required to participate. The present study explored the pseudonymity of sports message boards in relation to self-disclosure, expressing extreme opinions, emotional flaming, and fandom through a content analysis and quantitative survey instrument.

Summary of Findings

Quantitative Findings

There was a significant positive correlation between how frequently one engages in self-disclosure while utilizing a pseudonym and how often one engages in name-calling, how often one is extremely opinionated, how often one posts, and one's levels of fandom. Therefore, the more frequently an individual utilizes a pseudonym while engaging in self-disclosure, the more often one engages in name-calling, the more often one is extremely opinionated, the more often one posts, and the higher one's levels of fandom. There was a significant negative correlation between how frequently one engages in self-disclosure while utilizing a pseudonym and how comfortable one feels with self-disclosing his or her own identity. Consequently, the less frequently an individual utilizes a pseudonym while engaging in self-disclosure, the more comfortable one feels with self-disclosing his or her own identity. To address research questions 1, 4, 7, and 10, being pseudonymous online as compared to individuals whose identity is known affects the expression of extreme opinions and levels of emotional flaming and fandom because how frequently an individual engages in self-disclosure while utilizing a pseudonym is significantly positively correlated with how often one engages in name-calling, how often one is extremely opinionated, how often one posts, and one's levels of fandom. Additionally, being pseudonymous online as compared to individuals whose identity is known affects self-disclosure because how frequently an individual engages in self-disclosure while utilizing a pseudonym is significantly negatively correlated with how comfortable one feels with self-disclosing his or her own identity.

Thus, the findings of the present study are consistent with previous research. Most previous research took a congruent stance to the findings of the present study by suggesting that pseudonymity results in an increase in name-calling, expressing extreme opinions, and higher levels of fandom. Chui (2014)'s findings showed support for the results of the present study that a high frequency of utilizing a pseudonym while engaging in self-disclosure results in an increase in name-calling. Chui examined the relationship between anonymity and antisocial behaviors such as flaming, and she sought to find out if online anonymity affects online behavior and encourages antisocial behavior online or if online anonymity has no effect on antisocial behavior. Chui determined that individual contexts are important to consider, rather than just looking at anonymity because it alone does not cause antisocial behaviors since individuals have to be determined to act in antisocial ways. It is logical to extend Chui's findings to pseudonymity because anonymity and pseudonymity are conceptually similar, so it may be suggested that perhaps individual contexts are important to consider, rather than just looking at pseudonymity as well. Bilic's (2013) findings also are consistent with the results of the present study that a high frequency of utilizing a pseudonym while engaging in self-disclosure results in an increase in name-calling. Bilic examined anonymity's role in flaming and found that technology enabled inappropriate behaviors that did not take place as much in real life such as flaming. Additionally, Bilic determined that there is now more intense participation from youth because of the anonymity online. It is reasonable to extend Bilic's findings to pseudonymity because anonymity and pseudonymity are conceptually similar.

In terms of advocating extreme opinions, Kilner and Hoadley's (2005) findings showed support for the results of the present study, which indicated when there is an increased use of pseudonyms while engaging in self-disclosure, there is an increase in expressing extreme opinions. Kilner and Hoadley attempted to eliminate anonymity from an online community and it resulted in fewer comments overall and fewer comments out of the social norm, such as advocating extreme opinions. It is logical to extend Kilner and Hoadley's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that removing pseudonymity from an online community results in fewer comments overall and fewer comments out of the social norm, such as advocating extreme opinions, as well. It may be suggested that pseudonymity results in an increase in expressing extreme opinions since Kilner and Hoadley indicated removing anonymity from an online community resulted in fewer comments overall and fewer comments out of the social norm. Davenport's (2002) research is consistent with the present study's findings that a high frequency of utilizing a pseudonym while engaging in self-disclosure results in an increase in advocating extreme opinions. Davenport's findings indicated that online anonymity was harming our society and that it needed to go because individuals were not being held accountable for the nasty and extreme opinions they advocated. Davenport's findings on anonymity can also reasonably be applied to pseudonymity because the two concepts are conceptually similar, so it may be suggested that pseudonymity is harming our society and it needs to go because individuals are not being held accountable for the nasty and extreme opinions they advocate. Davenport also added that arguments and disagreements online can seem harmless, but quickly turn into a real problem leading to actions such as crime, protests,

revolutions, and violence. Davenport's findings are in line with the results of the present study since Davenport's findings on anonymity suggested that pseudonymity results in more expression of extreme opinions because individuals are not held accountable for nasty and extreme opinions they advocate when pseudonymous and this can turn into even bigger problems such as crime, protests, revolutions, and violence.

In terms of fandom, Clavio's (2008) findings are consistent with the results of the present study, which indicated that an increase in the frequency of utilizing a pseudonym while engaging in self-disclosure results in an increase in one's fandom levels. Clavio's findings indicated anonymity allowed individuals to be more comfortable expressing the way they truly feel, whether it is negative or positive, about their team. It is logical to extend Clavio's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it may be suggested that pseudonymity allows individuals to be more comfortable expressing the way they truly feel about the team as well, which results in more socialization taking place because people speak their minds rather than hiding their true feelings. Clavio's findings are in line with the results of the present study since pseudonymity results in an increase in one's fandom levels because pseudonymity enables fans to feel more comfortable expressing the way they feel about their team. End's (2004) findings are consistent with the results of the present study that a high frequency of utilizing a pseudonym while engaging in self-disclosure results in an increase in one's fandom levels. End concluded that anonymity in sports message boards enabled fans to use them to relish in the success of their team and simultaneously bash their opponents and opponents' fans. It is reasonable to extend End's findings to pseudonymity because anonymity and pseudonymity are conceptually similar. Thus, it

may be suggested that pseudonymity in sports message boards enables fans to use them to relish in the success of their team and simultaneously bash their opponents and opponents' fans as well. End's findings are in line with the results of the present study, since End's findings on anonymity suggested that pseudonymity results in an increase in one's fandom levels because individuals feel more connected to the team and feel a stronger connection with one another by gloating about the team's success and bashing the opponents and opponents' fans in pseudonymous situations.

There was a positive correlation between one's judgments of negative messages in conversations and how often one engages in name-calling, how often one is extremely opinionated, how frequently one engages in aggressive behaviors, one's levels of fandom, and one's judgments of positive messages in conversations. Additionally, one's judgment of the variables does not differ between negative and positive messages in conversations. There was a negative correlation between one's judgments of negative messages in conversations and how often one posts, and how comfortable one feels with self-disclosing his or her own identity. To address research questions 2, 5, 8, and 11, the more often one engages in name-calling, the more often one is extremely opinionated, the more frequently one engages in aggressive behaviors, and the higher one's levels of fandom, the more one's expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom align with one's judgments of the variables in negative messages in conversations. Additionally, the more often one posts and the more comfortable one feels with self-disclosing his or her identity, the less one's expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom align with one's judgments of the variables in negative messages in conversations. Previous research does not address

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relationships between one's judgments of negative messages in conversations and one's expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom.

There was a positive correlation between one's judgments of positive messages in conversations and how often one engages in name-calling, how often one is extremely opinionated, how often one posts, how frequently one engages in aggressive behaviors, and one's levels of fandom. There was a negative correlation between one's judgments of positive messages in conversations and how comfortable one feels with self-disclosing his or her identity. To address research questions 3, 6, 9, and 12, the more often one engages in name-calling, the more often one is extremely opinionated, the more often one posts, the more frequently one engages in aggressive behaviors, and the higher one's levels of fandom, the more one's expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom align with one's judgments of the variables in positive messages in conversations. Additionally, the more comfortable one feels with self-disclosing his or her identity, the less one's expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom align with one's judgments of the variables in positive messages in conversations. Previous research does not address relationships between one's judgments of positive messages in conversations and one's expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom.

Content Analysis Findings

Advocating extreme opinions, fandom, emotional flaming, and self-disclosure are the four variables that have been examined throughout the course of this study and

through the content analysis, the frequencies of each were calculated utilizing message board posts on http://www.footballsfuture.com about the Adrian Peterson child abuse incident. The most frequently occurring theme in the message board posts was advocating extreme opinions. The second most frequently occurring theme was fandom. The third most frequently occurring theme was emotional flaming. Finally, the fourth most frequently occurring theme was self-disclosure. Thus, the findings from the content analysis indicate that the frequencies of the four variables examined in the study in order of most frequent to least frequent is as follows: advocating extreme opinions, fandom, emotional flaming, and self-disclosure for this particular pseudonymous message board environment with the topic of discussion being Adrian Peterson's child abuse incident.

Subcategories emerged within each theme, except for self-disclosure. Three subcategories emerged within the advocating extreme opinions theme with one subcategory of comments stating that Adrian Peterson inappropriately disciplined his child. There was another advocating extreme opinions subcategory where a stance was not taken whether or not Adrian Peterson appropriately or inappropriately disciplined his child. The comments in the third advocating extreme opinions subcategory stated that Adrian Peterson appropriately disciplined his child. The advocating extreme opinions subcategory where a stance was not taken whether or not Adrian Peterson appropriately or inappropriately disciplined his child recorded the highest frequency. The second highest advocating extreme opinions subcategory frequency was registered by the group of posts stating that Adrian Peterson appropriately disciplined his child. The advocating extreme opinions subcategory with the lowest frequency was recorded by the group of posts stating that Adrian Peterson inappropriately disciplined his child.

Two subcategories emerged within the theme of fandom. One subcategory deals with comments regarding the impact of Adrian Peterson's child abuse incident on the Minnesota Vikings and the other subcategory deals with comments regarding the impact of Adrian Peterson's child abuse incident on the National Football League. The fandom subcategory with the highest frequency was the group of comments regarding the impact of Adrian Peterson's child abuse incident on the Minnesota Vikings. The fandom subcategory with the lowest frequency was the group of comments dealing with the impact of Adrian Peterson's child abuse incident on the National Football League. Two subcategories emerged within the theme of emotional flaming. One subcategory consisted of emotional flaming comments dealing with the Adrian Peterson child abuse incident and the other subcategory consisted of emotional flaming comments not dealing with the Adrian Peterson incident. The emotional flaming subcategory with the highest frequency was the group of comments dealing with the Adrian Peterson child abuse incident. The emotional flaming subcategory with the lowest frequency was the group of comments not dealing with the Adrian Peterson incident. Previous research did not deal with frequencies of self-disclosure, advocating extreme opinions, emotional flaming, and fandom in pseudonymous environments alone, but rather it examined the four variables in comparison between being pseudonymous online and individuals whose identity is known.

Implications

Gender stereotypes held true in some instances when examining gender differences in variables by utilizing independent samples t-tests. The results of the independent samples t-tests indicated that there were significant gender differences

between males and females with males exhibiting a higher frequency of name-calling, advocating extreme opinions, and posting frequency. These results foster the gender stereotype that males are more willing than females to let their voices be heard, at least when it comes to football. Interestingly though, there were no significant gender differences found between males and females for how frequently they engage in aggressive behaviors. Since name-calling and advocating extreme opinions are aggressive message board behaviors, it is interesting that there were significant gender differences found for name-calling and advocating extreme opinions, but not for aggressive behaviors. These results perhaps indicate that there are significant gender differences for some aggressive message board behaviors, but not others.

Zengerink (2013) determined that the typical flamer is male, spends at least 20 hours a week online, and at least 40 percent of the time spent online is on message boards, but the women that flame do so more regularly than men. Zengerink's findings were inconclusive in relation to the findings of the present study because Zengerink indicated the typical flamer is male, but the women who flame do so more regularly than men. Thus, Zengerink's findings were not in line with the independent samples *t*-test results because he did not conclusively indicate there were significant gender differences between males and females in terms of emotional flaming. Additionally, Zengerink indicated that individuals who avoid websites are likely female. This finding implied there are significant gender differences between men and women in terms of posting frequency, but yet it was not in line with the independent *t*-test results because it did not conclusively indicate significant gender differences in terms of posting frequency. Li (2006) examined students from three different junior high schools to gain specific

information about cyberbullying at that age level. Results indicated there were differences in the results between males and females as males were more likely to be cyberbullies than females. Li (2007) conducted another study about cyberbullying, but examined these behaviors in an urban environment instead this time and determined that females were more likely to be cyberbullies than males. Li's findings implied there were no significant gender differences between men and women in terms of engaging in aggressive behaviors because it depends on the environment. Li's second study indicated females were more likely to be cyberbullies than males in urban environments, but Li's first study that did not specifically examine urban environments indicated males were more likely to be cyberbullies than females. Thus, Li's findings were in line with the independent samples *t*-test results that there were no significant gender differences between males and females in terms of engaging in aggressive behaviors. Aiken and Waller (2000) examined flaming in relation to meetings that take place online, as opposed to FtF meetings. Aiken and Waller determined the majority of the flaming incidents occurred among males online. Aiken and Waller's findings imply there are significant gender differences between males and females in terms of engaging in emotional flaming, but their findings are not in line with independent samples *t*-test results because they do not conclusively indicate significant gender differences in terms of engaging in emotional flaming.

An expectation might be that there would be significant gender differences between males and females in terms of fandom because a gender stereotype is that males have a higher level of sports fandom than females, but the independent samples *t*-test results did not indicate reinforce this stereotype as no significant gender differences were

found between males and females for fandom. It may have been expected for there to be gender differences between males and females in terms of feeling comfortable with self-disclosing one's own identity and the frequency of self-disclosure while utilizing a pseudonym to reinforce the gender stereotype that males are more willing than females to let their voices be heard. However, the results did not reinforce this gender stereotype, as they indicated no significant gender differences between males and females in terms of feeling comfortable with self-disclosing one's own identity and the frequency of self-disclosure while utilizing a pseudonym. There were also no significant gender differences found for judgments of positive and negative messages in conversations, but there are no gender stereotypes going against this line of thinking. The independent *t*-tests results hold important ramifications for gender stereotypes. Barak and Gluck-Ofri (2007) examined self-disclosure depth in online forums and concluded that differences existed between males and females in terms of self-disclosure reciprocity because females were generally more reciprocal. Barack and Gluck-Ofri's findings were not in line with the independent samples *t*-test results because the findings of the present study indicated no significant gender differences between males and females in terms of feeling comfortable with self-disclosing one's own identity and the frequency of self-disclosure while utilizing a pseudonym.

Correlation analysis indicated that the more frequently an individual utilizes a pseudonym while engaging in self-disclosure, the more often one engages in name-calling, expresses extreme opinions, and the higher one's levels of fandom. These results are counterintuitive because based on preconceived notions of message board behaviors, one would suppose that being pseudonymous would result in more expression of extreme

opinions and higher levels of name-calling, emotional flaming, and fandom because individuals are more likely to engage in these behaviors when their identity is not known. The correlation analysis holds crucial implications for preconceived notions of message board behaviors. Correlation analysis also indicated that the less frequently an individual utilizes a pseudonym while engaging in self-disclosure, the more comfortable one feels with self-disclosing his or her own identity. An explanation for the finding that an individual feels more comfortable self-disclosing under pseudonymous conditions is that, even though the individual is under a pseudonym, he or she is personally invested in the situation by disclosing information about him or herself.

Frequent message board users get to know other participants through their writing styles, argument tendencies, and personal information shared. Thus, these situations are not completely pseudonymous because individuals get to know each other, despite utilizing usernames. Message boards are not truly pseudonymous because individuals reveal information about themselves such as what they value, what is important to them, and what their viewpoint is on certain issues by expressing extreme opinions. Additionally, individuals reveal information about themselves on message boards through self-disclosure. Some individuals self-disclose and express extreme opinions online to develop their pseudonym into a full-fledged online identity. Some people end up living two different identities with their real-world one and their online one. Meanwhile, other individuals jump onto a message board only occasionally, so the username they utilize on a message board does not mean as much to them and they are not as invested in using the username as an online identity. Consequently, they may engage in self-disclosure and

expressing extreme opinions less frequently than individuals who are message board regulars and known quantities.

A greater meaning can be taken from the content analysis findings that indicate the frequencies of the four variables examined in the study in order of most frequent to least frequent as follows: advocating extreme opinions, fandom, emotional flaming, and self-disclosure. Although each message board has unique characteristics to make it different, there are two features that are noteworthy about the footballsfuture.com message board examined in the content analysis that allows the findings to be applied to other situations. The posts examined in the content analysis took place in a pseudonymous message board environment with the topic of discussion being Adrian Peterson's child abuse incident. Thus, it can be expected that out of the four variables examined in the study, the most frequently occurring theme would be advocating extreme opinions, the second most frequently occurring theme would be fandom, the third most frequently occurring theme would be emotional flaming, and the fourth most frequently occurring theme would be self-disclosure in another pseudonymous message board environment with the topic of discussion being Adrian Peterson's child abuse incident. Additionally, it would be expected that the majority of the posts would come from the Minnesota Vikings team board with the minority coming from the NFL league board like in the content analysis if it were applied to a similar situation. Also, it would be expected that the frequencies of the themes' subcategories such as the lowest frequency of the fandom subcategory being the group of comments dealing with the impact of Adrian Peterson's child abuse incident on the Minnesota Vikings would be similar to the content analysis if it were applied to a similar situation.

Limitations

There are several ways the study would be redone now with the knowledge of what went wrong when the study was conducted and how it could be fixed given the opportunity to conduct the same study again. Although the study's survey instrument had adequate factor analyses and scale reliabilities, the survey instrument could definitely be improved in several areas. Some items that were included in the survey instrument with the intention of measuring a certain variable did not actually adequately measure that variable in reality. For instance, a survey item asking respondents to identify their comfort level when self-disclosing personal information while using a pseudonym as opposed to when their real name is known does not effectively measure the variable of self-disclosure. However, a survey item asking respondents to identify their frequency of self-disclosure while using a pseudonym as opposed to when their real name is known more effectively measures the variable of self-disclosure because the survey item is able to quantify the variable in a practical real-life situation. A respondent is able to state how often he or she actually self-disclosed information using a pseudonym as opposed to when his or her real name is known. On the other hand, a survey item asking an individual about his or her comfort level does not relate the variable to a practical real-life self-disclosure situation and does not help to answer the research question about whether or not being pseudonymous online affects levels of self-disclosure as compared to individuals whose identity is known.

Additionally, the subscales should ideally be further modified and refined to more effectively answer the research questions. The titles of the subscales would be self-disclosure, expressing extreme opinions, fandom, and emotional flaming in a perfect

world because research questions asked about the four aforementioned variables in pseudonymous situations as compared to when one's identity is known, as well as in positive and negative messages in conversations. The design of the survey instrument employed in the study did not allow for the EFAs and independent samples t-tests to be implemented in the research questions. In other words, only the correlations, not the EFAs or independent samples t-tests, helped to answer the research questions. The independent samples t-tests measured the difference in the variables between males and females, but no research questions inquired about gender. Additionally, no research questions asked about survey items loading on a particular factor, so the EFAs did not help to answer any research questions. As a result of the six-item frequency scale measuring different variables, the frequency scale was scrapped and a three-item message board disclosure scale was developed to effectively measure how frequently an individual engages in self-disclosure while utilizing a pseudonym. The three items that were part of the three-item message board disclosure scale measured the frequency of self-disclosure, frequency of personal self-disclosure, and the frequency of posting while using a pseudonym. The other three items in the initial six-item frequency scale measured the frequency of name-calling, the frequency of advocating extreme opinions, and posting frequency, so they were inserted into the correlation analysis as separate individual items, in order for each item to effectively measure its corresponding variable effectively. The frequency of name-calling item aided in answering the research questions dealing with emotional flaming, while the frequency of advocating extreme opinions item helped the answer the research questions dealing with expressing extreme opinions. Three of the four behavior subscales were retained with the third behavior subscale dealing with self-

disclosure not being retained due to having a weak reliability. The first, second, and fourth behavior subscales, dealing with aggressive behaviors, feeling comfortable with self-disclosing one's own identity, and fandom, were retained. The two conversation scales also were retained for the correlation analysis with the first conversation scale measuring judgments of negative messages in conversations and the second conversation scale measuring judgments of positive messages in conversations. The first and second conversation scales aided in answering the research questions dealing with judgments of negative and positive messages in conversations. The content analysis does not answer any of the research questions because it simply lists the frequencies for the four variables, the frequencies of the themes' subcategories, the percentage of message board posts coming from the Minnesota Vikings board versus the NFL board, and how many individuals were frequent users in a pseudonymous message board environment. Meanwhile, the research questions deal with judgments in negative and positive messages in conversations and differences in self-disclosure, emotional flaming, fandom, and advocating extreme opinions between being pseudonymous online and when one's identity is known. Knowing the frequencies of the four variables, the frequencies of the themes' subcategories, the percentage of message board posts coming from the Minnesota Vikings board versus the NFL board, and how many individuals were frequent users in the content analysis does not help to answer the research questions. Additionally, the content analysis findings are not all that applicable and generalizable because the findings are mainly applicable to the footballsfuture.com pseudonymous message board environment in a discussion about Adrian Peterson's child abuse incident. Another context that the findings can be applied to is another pseudonymous sports message board

environment that is having a discussion about Adrian Peterson's child abuse incident, but that is about it, so the findings are not very generalizable.

Suggestions for Future Research

A pilot study was conducted before this present study was done and the pilot study was examined to determine if it had adequate factor analyses and scale reliabilities. The pilot study had adequate factor analyses and scale reliabilities. However, the pilot study was not examined to determine if the survey items measured the variables effectively and if the survey items adequately answered the research questions. As it turned out, some of the survey items in the present study did not measure the variables effectively and did not answer the research questions as intended. Survey items were developed with the intention of effectively measuring the variables and answering the research questions. However, the survey items were examined to determine if they met these goals after the factor analyses and scale reliabilities were examined. It was determined that the survey items did not meet the goals as intended and a new plan of attack had to be formed. One way to prevent this situation from occurring would have been to examine the survey items in the pilot study to determine if they effectively measured the variables and answered the research questions. By doing so, the problem could have been identified in its earlier stages during the pilot study rather than in the present study. Additionally, the survey instrument could be compared to existing measures that deal with similar concepts to this study such as the anonymity or pseudonymity of message boards and deal with some or all of the variables in this study or similar variables dealing with message board behaviors. The purpose of doing so would be to refer to existing measures in order to improve the present study's survey

instrument by fixing its issues such as survey items ineffectively measuring the variables and inadequately answering the research questions. Additionally, message board behaviors other than self-disclosure, emotional flaming, and advocating extreme opinions that were included in existing measures dealing with the pseudonymity of sports message boards should be explored in a future study.

Future research should aim for the content analysis to be more of an integral aspect of the study by playing a role in answering the study's research questions and helping to fulfill the study's purpose. The content analysis in this present study does not play a role in answering the research questions. The main goal of the content analysis was to determine the frequencies of the four variables including self-disclosure, fandom, advocating extreme opinions, and emotional flaming, while the research questions dealt with judgments in negative and positive conversations and whether or not being pseudonymous online affects the frequency of self-disclosure, advocating extreme opinions, fandom, and emotional flaming compared to individuals whose identity is known. Additionally, future research should aim for the content analysis to be more generalizable as the content analysis in this present study is only applicable to pseudonymous message board environments that have conversations dealing with Adrian Peterson's child abuse incident. Future research should also ask participants if they frequent any message board, how long they have frequented that message board, and if they have a handle or pseudonym they use on that message board. After that, participants should answer the same questions from the survey instrument in the present study, but from the perspective of their message board pseudonym and not from the perspective of their real name.

Conclusion

The present study revealed a new survey instrument for advancing the study of the pseudonymity of sports message boards with variables representing a combination of general message board behaviors such as self-disclosure, advocating extreme opinions, and emotional flaming and variables specific to sports message boards such as fandom. Results revealed that being pseudonymous online as compared to individuals whose identity is known affects the expression of extreme opinions and levels of emotional flaming and fandom. The more frequently an individual utilizes a pseudonym while engaging in self-disclosure, the more often one engages in name-calling, expresses extreme opinions, and the higher one's levels of fandom. Also, the less frequently an individual utilizes a pseudonym while engaging in self-disclosure, the more comfortable one feels with self-disclosing his or her own identity. Additionally, the more often one engages in name-calling, the more often one is extremely opinionated, the more frequently one engages in aggressive behaviors, and the higher one's levels of fandom, the more one's expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom align with one's judgments of the variables in negative messages in conversations. Also, the more often one posts and the more comfortable one feels with self-disclosing his or her identity, the less one's expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom align with one's judgments of the variables in negative messages in conversations.

Additionally, the more often one engages in name-calling, the more often one is extremely opinionated, the more often one posts, the more frequently one engages in aggressive behaviors, and the higher one's levels of fandom, the more one's expression

of extreme opinions and levels of self-disclosure, emotional flaming, and fandom align with one's judgments of the variables in positive messages in conversations. Finally, the more comfortable one feels with his or her identity being known, the less one's expression of extreme opinions and levels of self-disclosure, emotional flaming, and fandom align with one's judgments of the variables in positive messages in conversations. The findings of the content analysis indicated that the most frequently occurring theme in the message board posts was advocating extreme opinions, the second most frequently occurring theme was fandom, the third most frequently occurring theme was emotional flaming, and the fourth most frequently occurring theme was self-disclosure. The content analysis also noted the subcategories of the themes and their frequencies. Additionally, the content analysis's results indicated that a majority of the posts came from the Minnesota Vikings board, while a minority came from the NFL board, and a majority of the individuals involved in the conversation were frequent users. Future studies are necessary to explore the variables in this present study in greater detail by refining the survey items that did not effectively measure the variables and adequately answer the research questions as intended. Additionally, future research should examine the possibility of other message board behaviors not explored in this present study that might play a role in the pseudonymity of sports message boards. Still, the new survey instrument for examining the pseudonymity of sports message boards had adequate factor analyses and scale reliabilities. Additionally, the findings in the present study help to advance this line of research and raise issues that can be addressed through future research.

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APPENDIX

SURVEY INSTRUMENT

<u>Directions:</u> Please answer the following questions, indicating your level of agreement with the following statements (from 1 *strongly disagree* to 5 *strongly agree*).

1. I feel more comfortable self-disclosing information when my real name and identity are not known (than when they are).
2. I self-disclose information more often in situations when my real name and identity are known (than when they are not).
3. I would prefer to disclose personal information when my real name and identity are not known (than when they are).
4. I disclose personal information more often when my real name and identity are not known (than when they are).
5. I am more opinionated in my comments when my real name and identity are not known (than when they are).
6. I feel more comfortable being opinionated when my real name and identity are known (than when they are not).
7. I would be more likely to engage in name-calling when my real name and identity are not known (than when they are).
8. I would feel more comfortable engaging in name-calling when my real name and identity are known (than when they are not).
9. I feel a stronger connection to something that I am interested in when being part of an online message board community in which pseudonyms are utilized with other individuals who have the same interest.
10. I feel a strong bond with other individuals who utilize pseudonyms in an online message board community that is designed for people with similar interests.
11. I am more likely to express extreme positive opinions (e.g., saying that a sports team is the best team in the universe) when my real name and identity are known - than when they are not.
12. I am more likely to express extreme negative opinions (e.g., saying that a sports team is the worst team in the universe) when my real name and identity are not known - than when they are.
13. I am more critical of others' opinions when my real name and identity are not known (than when they are).
14. I am more likely to express my disagreement of others' opinions when my real name and identity are known (than when they are not).

<u>Conversation One</u>

<u>Directions:</u> Please read the conversation below from an online sports message board community with individuals who utilize pseudonyms. This message board conversation took place between football fans from rival high schools. School names mentioned in the conversation were changed. Indicate your level of agreement with the statements that follow the conversation (from 1 *strongly disagree* to 5 *strongly agree*).

SuperFan111: I've had the pleasure of following Central High School the past four seasons, in which they have won 22 out of their last 23 playoff games. The lone loss was a heartbreaking 41-40 loss at West High School (of course the refs had nothing to do with West High School winning that game.) After all, we are talking about one of the most cheating schools in the state. I guess what I am saying here is "If you are good, you win the game wherever you play. Unless it's at West High School."

SamIsTheBest1234: Really, West High School is one of the most cheating schools in the state? Did they pay the refs in the win over your team? More recruiting nonsense? Please tell me about all this cheating. And to provide full disclosure, I live in the West High School area, my kids went to school there, and all of us are very proud of our football program. Sorry we broke your heart and see all those sour grapes pour out.

SuperFan111: You sir are an idiot. I was at the game and everyone in the stadium knew the ref cheated on the call when on 3rd and 10 the West High School receiver dove for the ball and it bounced on the ground and his hands were on top of the ball as it hit the ground. There were pictures of the play on the Internet. I do not believe a ref in a semi-final game would have missed that call. It was called a completed pass because that is what the ref wanted to call. West High School would have had to punt on 4th and 10. Instead they got a first down and eventually scored the touchdown. Central High School took the kickoff and drove all the way down and scored the touchdown with 7 seconds to go to make it 41-40. However, instead of kicking the extra point to tie the game they went for two and were unsuccessful. There was also the play where Central High School had a 3rd and 10 and completed a pass to the West High School 15 for a first down, only to have the ref throw a late flag and call a holding penalty on the wide receiver completely on the other side of the field. That would have given Central High School a first down at the West High School 15 yard line.

15. SuperFan111's first comment regarding West High School being one of the most cheating schools in the state is too opinionated.
16. SuperFan111's first comment shouldn't be posted on the message board.
17. SuperFan111 calling SamIsTheBest1234 an idiot was not warranted.
18. SamIsTheBest1234's self-disclosure was too personal.
19. SamIsTheBest1234's self-disclosure shouldn't be posted on the message board.
20. As a result of this conversation, SamIsTheBest1234, SuperFan111 and the other members of this sports message board community feel a stronger connection to the sports team they are interested in.

21. As a result of this conversation, SamIsTheBest1234, SuperFan111 and the other members of this sports message board community feel a stronger bond with their own team's fans that are a part of this community.
22. SamIsTheBest1234's self-disclosure caused the conversation to come to an end quicker than it would have otherwise.
23. SamIsTheBest1234's self-disclosure was ineffective.
24. SuperFan111's first comment was made because he or she felt more comfortable being more opinionated in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
25. SuperFan111 is less likely to be opinionated in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
26. SuperFan111 called SamIsTheBest1234 an idiot because he or she felt more comfortable engaging in name-calling in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
27. SuperFan111 prefers to engage in name-calling in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
28. SamIsTheBest1234 engaged in self-disclosure because he or she prefers to do so in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
29. SamIsTheBest1234 is less likely to engage in self-disclosure in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
30. SuperFan111 is more critical of SamIsTheBest1234's opinion in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
31. SuperFan111 is less likely to express his or her disagreement of SamIsTheBest1234's opinion in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
32. SuperFan111 prefers to make extremely negative comments about West High School in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.

Conversation Two

Directions: Please read the conversation below from an online sports message board community with individuals who utilize pseudonyms. This message board conversation took place between basketball fans from the same university. The school name mentioned in the conversation was changed. Indicate your level of agreement with the statements that follow the conversation (from 1 *strongly disagree* to 5 *strongly agree*).

NumberOneFan100: I hope there is strong consideration by our administrators to leave this conference as soon as we possibly can. To me, we have no business staying in this conference with South University dominating in basketball. I believe that 100%.

GoTeam1: You are as much of an asshat as the person you quote in your signature. You very well know that the lack of football for South University prevents us from moving up to a bigger conference.

NumberOneFan100: Of course I know the lack of football is a deterrent; after all, I played South University football before they disbanded, but there has to be a workaround where we can move up without football. Hell, even re-add football if that's what it takes to move up.

33. NumberOneFan100's first comment is too opinionated.
34. NumberOneFan100's first comment shouldn't be posted on the message board.
35. GoTeam1 calling NumberOneFan100 an asshat was not warranted.
36. NumberOneFan100's self-disclosure was too personal.
37. NumberOneFan100's self-disclosure shouldn't be posted on the message board.
38. As a result of this conversation, GoTeam1, NumberOneFan100 and the other members of this sports message board community feel a stronger connection to the sports team they are all interested in.
39. As a result of this conversation, GoTeam1, NumberOneFan100 and the other members of this sports message board community feel a stronger bond with one another.
40. NumberOneFan100's self-disclosure was necessary for the conversation to end at that point.
41. NumberOneFan100's self-disclosure was ineffective.
42. NumberOneFan100's first comment was made because he or she felt more comfortable being more opinionated in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
43. NumberOneFan100 is less likely to be opinionated in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
44. GoTeam1 called NumberOneFan100 an asshat because he or she felt more comfortable engaging in name-calling in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.

45. GoTeam1 prefers to engage in name-calling in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
46. NumberOneFan100 engaged in self-disclosure because he or she prefers to do so in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
47. NumberOneFan100 is less likely to engage in self-disclosure in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
48. GoTeam1 is more critical of NumberOneFan100's opinion in this online message board community with individuals who utilize pseudonyms than he would be where his or her real name and identity is known.
49. GoTeam1 is less likely to express his or her disagreement of NumberOneFan100's opinion in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.
50. NumberOneFan100 prefers to make extremely positive comments about the team in this online message board community with individuals who utilize pseudonyms than where his or her real name and identity is known.

Fan Board Tendencies

Directions: Please answer questions 51 through 56 by indicating how frequently (from 1 *never* to 5 *always*) you engage in the following behaviors.

51. How often do you post on message boards using a pseudonym (username or other identifier that is not your real name)?
52. How often do you disclose information about yourself on message boards?
53. How often do you disclose personal information about yourself on message boards?
54. How often do you engage in name-calling on message boards?
55. How often are you extremely opinionated on message boards?
56. How often do you post on sports message boards?
57. Describe the message board(s) you participate in, if any._____

Individual Demographic Information

58. What is your biological sex? _____Male _____Female _____Other
59. What is your age? _____
60. What is your race/ethnicity?
_____African American_____Native American_____Caucasian
_____Hispanic _____Bi-racial/Mixed_____Asian/Pacific Islander
_____Other
61. Which one of the following categories best describes your role at ISU?

_____Freshman_____Sophomore_____Junior_____Senior ___Master's student ___ Doctoral student