# The Role of Extraversion and Communication Methods on an Individual's Satisfaction with the Team

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Teams communicate. The question then becomes how communication methods influence an individual members' satisfaction with the team. We explore face-to-face and online communication methods to determine how each influences the individual's satisfaction with the team. Further, we examine extraversion as a moderator between communication method and individual satisfaction with the team. Results suggest that face-to-face communication and individual satisfaction with the team are positively related, while online communication is not related to individual satisfaction. Our post hoc analysis suggests a negative relationship between age and face-to-face communication. Discussion and implications are included.

## **INTRODUCTION**

Organizations have been moving toward more online communication, not only for their daily operations, but also for team projects. This transition has caused researchers to investigate how teams interact within an online domain (Alge, Wiethoff, & Klein, 2003; Becker-Beck, Wintermantel, & Borg, 2005; Kirkman, Rosen, Tesluk, & Gibson, 2004; Triana, Kirkman, & Wagstaff, 2012). Furthermore, the method by which teams communicate has received a substantial amount of research (Anderson, McEwan, Bal, & Carletta, 2007; Kupritz & Cowell, 2011; Pitts, Wright, & Harkabus, 2012; Rico & Cohen, 2005; Warkentin, Sayeed, & Hightower, 1997). The shift from purely face-to-face communication to more online, or virtual, communication is steadily increasing. Moreover, methods by which teams communicate range from face-to-face to online, and increasingly, a hybrid of face-to-face and online communication methods is emerging (Dixon & Panteli, 2010). This view of a hybrid between face-to-face and online communication methods is gaining popularity (Cohen & Gibson, 2003; Dixon & Panteli, 2010; Griffith & Neale, 2001; Rico & Cohen, 2005; Wang & Hsu, 2012).

As teams are being utilized more in organizations, researchers should also explore individual team member satisfaction with the team experience. Although studies have neglected this aspect of team satisfaction (Peeters, Rutte, van Tuijl, & Reymen, 2006), it is imperative that researchers focus on this aspect as it could have ripple effects not only within the team itself, but also for future teams. For instance, a member's dissatisfying experience with a team could negatively influence that member's attitude toward teamwork, thus potentially resulting in decreased effort when engaged in future teams (Peeters, et al., 2006).

Some team dynamics result from the personality differences among team members. The Big Five personality traits have been studied extensively within teams (i.e., Bell, 2007; MacDonnell, O'Neill, Kline, & Hambley, 2009; Mohammed & Angell, 2003; Peeters, et al., 2006; Wang & Hsu, 2012), since researchers called for a construct-oriented approach in studies concerning personality and workplace criteria (Hough & Oswald, 2000, 2005; McGrath, 1998). In this study, we focus on extraversion since past studies using extraversion within teams yielded conflicting results (Lancellotti & Boyd, 2008; Yellen, Winniford, & Sanford, 1995) and since extraversion has been suggested to influence communication preferences (Topi, Valacich, & Rao, 2002). The purpose of this study is to understand the effect of communication methods, online and face-to-face, and individual satisfaction with the team, with extraversion as a moderator. This study contributes to the literature by exploring the relationship between communication methods and individual satisfaction with the team and by offering further explanation of the role of extraversion in teams.

#### LITERATURE REVIEW

#### **Teams and Communication Methods**

A team is defined as individuals who work together to achieve specific goals and take common responsibility for the team's success (Kozlowski & Bell, 2003). Team members rely on each other and share their own complementary skills or knowledge to contribute to the team (LePine, Hanson, Borman, & Motowidlo, 2000; Perrow, 1967). Research suggests that the impact of team interaction processes on effectiveness may depend on task interdependence, which refers to the extent to which team members are dependent upon each other to get tasks accomplished (Alge, et al., 2003; Wageman, 1995). Today, teams use two methods of communication to complete their goals: FTF and online.

#### FTF Communication

FTF communication is an orderly process in which verbal and nonverbal cues offer feedback, facilitate turn taking, and transmit subtle shades of meaning (McGrath, 1991; Ocker, Fjermestad, Hiltz, & Johnson, 1998). People rely on multiple modes of communication in FTF conversation, such as verbal (tone of voice, inflection, and voice volume) and nonverbal (eye movement, facial expressions, hand gestures, and other body language) cues. Further, in normal FTF conversation, there are few interruptions or long pauses and the distribution of participation is consistent (McGrath, 1990). Overall, FTF communication offers the maximum amount of cues, and is regarded as the highest quality method (O'Mara, 1999). Despite its advantages for richer communication, FTF meetings can be costly, both in terms of travel and in terms of time spent for location arrangement (O'Mara, 1999).

## Online Communication

Also known as computer-mediated communication (Baltes, Dickson, Sherman, Bauer, & LaGanke, 2002), online communication refers to communication via computers and involves two types: synchronous communication, in which people communicate in real time via chat or discussion software, with all participants at their computers at the same time, and asynchronous communication, in which people communicate in a delayed fashion by computer, such as e-mail (Warschauer, 2001). Online communication has also changed intra-organizational communication (Bordia, 1997). Both small and large organizations use online communication for a host of activities such as group problem solving, coordination of group projects, and sharing ideas (Siegel, Dubrovsky, Kiesler, & McGuire, 1986). An advantage of online communication is the ability to recruit additional members with relevant expertise rapidly (Anderson, et al., 2007). Despite the increasing acceptance of online communication methods within organizations, there have been some shortcomings, which include issues with privacy, trust, security, and social control (Dunlop & Kling, 1991). Moreover, online communication eliminates the verbal and nonverbal cues associated with FTF communication, thus altering the orderliness and effectiveness of information exchange (Hightower, Sayeed, Warkentin, & McHaney, 1997;

Lewandowski, Rosenberg, Parks, & Siegel, 2011) and destroying the normal "give and take" of a FTF conversation (Warkentin, et al., 1997).

## Communication Theories

Three communication theories are particularly relevant to this study. Social presence theory refers to the degree to which a communication method conveys the psychological perception that other people are physically present and suggests that these methods are capable of providing a greater sense of intimacy and immediacy (Short, Williams, & Christie, 1976). Media richness theory suggests that intraorganizational communication can be ordered on a continuum from leanest to richest media, where lean media, such as numeric documents, lack a personal focus and are not able to transmit nonverbal cues or to provide immediate feedback that rich media, such as FTF communication, are able to provide (Daft & Lengel, 1984; Trevino, Daft, & Lengel, 1987). Media naturalness theory contends that because humans' natural form of communication is face-to-face, less natural forms of communication such as online methods will have negative impact on message interpretation (Kock, 2004). Furthermore, these three theories imply that FTF communication is superior to online communication (MacDonnell, et al., 2009).

## Previous Communication Research

Previous research demonstrates differences between FTF and online communications. First, the level of participation between the two types has been shown to be different. In FTF groups, status differences in group members frequently determine participation, with higher status members participating more, while in online groups, participation tends to be more balanced or equitable (Siegel, et al., 1986). Second, studies show that there is less normative interpersonal or social pressure in online groups (Bordia, 1997). Third, online groups tend to have higher uninhibited behavior. Since members are occupied with creating, sending, and receiving messages, the attention of members is distracted from the social context. Thus, they are less concerned with what others will think, which presumably leads to uninhibited behavior (Kiesler, Siegel, & McGuire, 1984; Siegel, et al., 1986). Fourth, research suggests that teams which utilize online communication methods will communicate less effectively than groups who meet in person (Hightower & Sayeed, 1995, 1996; McGrath & Hollingshead, 1994; Straus, 1996). Conversely, studies have shown that teams using online communication methods could not outperform FTF teams under similar circumstances (Warkentin, et al., 1997). These studies demonstrate the need for further investigation to evaluate the effectiveness of FTF and online communication methods.

#### **Individual Satisfaction with the Team**

Researcher has shown that teams are less effective when the members themselves are not satisfied with the way the team functions (Mohrman, Cohen, & Mohrman, 1995). Therefore, determining how satisfied team members are with their team is of increasing importance to both researchers and managers since this information holds important consequences for the team member's future work (Peeters, et al., 2006). Although some research regarding the individual satisfaction with the team has been explored in virtual team research (Furumo, 2009; Piccoli, Powell, & Ives, 2004), it is an outcome variable that has largely been ignored in team research (Milliken & Martins, 1996). Since teamwork has become an increasingly important aspect of organizations and education, individual team member satisfaction with the team presents a vital area to explore (Peeters, et al., 2006).

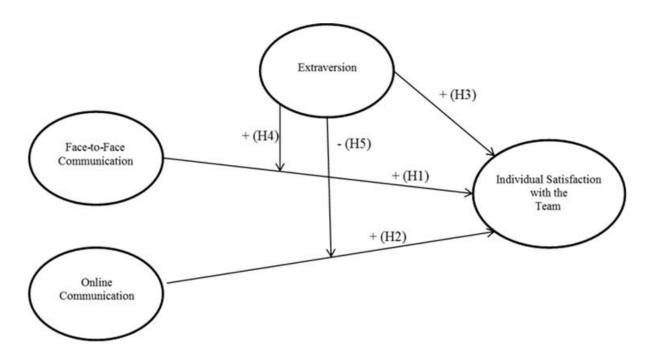
## **Extraversion**

Extraversion refers to the extent to which a person is outgoing and talkative and is associated with behaviors such as being sociable, gregarious, assertive, and active (McCrae & Costa, 1985). Additionally, people with this type of personality trait are usually talkative, lively, optimistic, enthusiastic, and active (Barrick & Mount, 1991; Costa & McCrae, 1992; Neuman, Wagner, & Christiansen, 1999). Furthermore, they like to have contact with people and positively participate in team discussions (Littlepage, Schmidt, Whisler, & Frost, 1995). Highly extraverted people are often perceived as being dominant and as leaders (Barry & Stewart, 1997) and tend to have better communication skills (Hogan, Curphy, & Hogan, 1994).

Researchers have called for a construct-oriented approach in studies involving personality and workplace criteria (Bergman, Small, Bergman, & Bowling, 2014; Hough & Oswald, 2000, 2005; McGrath, 1998). Although several subdimensions of the Big Five have been shown to have an impact on team effectiveness (Barrick, Stewart, Neubert, & Mount, 1998; LePine, 2003; Lim & Ployhart, 2004; Mohammed & Angell, 2003; Neuman & Wright, 1999), each contains a host of subdimensions that address narrower and more criterion-specific aspects of the larger constructs (Pearsall & Ellis, 2006). Additionally, researchers suggest that examining these subdimensions may uncover effects that would otherwise be hidden and that there is value in examining the subdimensions of the Big Five, such as extraversion, in teams (Moon, 2001; Pearsall & Ellis, 2006).

Extraversion has been studied extensively in teams, with mixed results regarding its effect on performance (Barrick, et al., 1998; Barry & Stewart, 1997; Bell, 2007; Neuman & Wright, 1999). Barry and Stewart (1997) suggested that the benefits of extraversion on team performance lie primarily in the subdimension of assertiveness. Assertive individuals tend to be decisive, outspoken, forceful, and direct (Deluga, 1988) and share ideas and information in a clear, confident manner (Hayes, 1991). Furthermore, team member extraversion has been shown to be related to attraction toward the team (Kristof-Brown, Barrick, & Stevens, 2005) and to team processes such as team members seeking help from other team members when needed (Porter, et al., 2003). Given the previous studies on extraversion within teams, an underexplored area rests with how extraversion interacts with both the type of communication method and individual satisfaction with the team.

FIGURE 1
ILLUSTRATION OF HYPOTHESES BETWEEN COMMUNICATION METHOD,
EXTRAVERSION, AND INDIVIDUAL SATISFACTION WITH THE TEAM



#### HYPOTHESES DEVELOPMENT

## **Communication Methods**

Research has not provided consistent support for the predictive value of social presence theory or media richness theory for communication methods. Further, researchers have criticized the assumptions

of both theories indicating that communication richness is an objective property of the communication method itself, independent from the social context where the communication takes place (Carlson & Zmud, 1999; Fulk, Schmitz, & Steinfeld, 1990; Markus, 1994; van den Hooff, Groot, & De Jonge, 2005). Additionally, opponents propose that online communication methods are multilayered and contextual and argue against the placement of email as a leaner medium as it was predicted to be in the aforementioned theories (Kupritz & Cowell, 2011).

Research has also shown that some differences arise regarding individual satisfaction with the team and communication methods. Specifically, anonymity, discussion time, and group size each had effects on the difference between member satisfaction between the online groups and FTF groups (Baltes, et al., 2002). Other research has shown that when necessary information is not distributed equally to team members, dissension is created which leads to lower levels of satisfaction (Janz, Colquitt, & Noe, 1997; Jehn, Northcraft, & Neale, 1999). Likewise, satisfaction will decline when members fail to coordinate their interdependent roles and responsibilities toward the completion of the team task and are then left to fend for themselves (Van Der Vegt, Emans, & Van de Vliert, 2000, 2001; Wageman & Baker, 1997).

Team members must communicate to accomplish their task. Although not explicitly stated in the definition of individual satisfaction with the team, we suggest that communication method plays an intricate role in determining the individual satisfaction with the team as communication is a fundamental aspect of teamwork. Further, we argue that since communication is a fundamental aspect of a team, any type of communication, whether FTF or online, will have a positive influence on an individual's satisfaction with the team. Therefore, we propose the following hypotheses:

Hypothesis 1: FTF communication has a positive relationship with individual satisfaction with the team.

Hypothesis 2: Online communication has a positive relationship with individual satisfaction with the team.

## **Extraversion and Satisfaction**

A team environment offers extraverts the means to be assertive, to talk, and to socialize (Neuman, et al., 1999). Extraversion usually facilitates positive results for a team, not only being advantageous to a team's operations, but also enhancing the participation of team members and team satisfaction (Barrick & Mount, 1991; Hogan, et al., 1994). It follows that since a team environment permits extraverts to be themselves, we hypothesize that the individual dynamics of team members will grant positive individual satisfaction with the team. In other words,

Hypothesis 3: Team members with high extraversion will have higher individual satisfaction with the team than team members with low extraversion.

## **Extraversion as Moderator for Communication Method**

Since team members must communicate about ideas, work approaches, individual contributions, progress, and encountered problems, they need to be assertive in taking actions toward task completion (Peeters, et al, 2006; Van Vianen & De Dreu, 2001). Wang and Hsu (2012) concluded that compared to a "negative and passive" team, a "positive and active" team personality composition has high extraversion; additionally, a team with a personality trait of low extraversion will demonstrate behaviors of being passive and lacking confidence.

Extraverts may experience frustration in environments in which relationship building is hindered by online communication methods (MacDonnell, et al., 2009). Regarding online communications, Topi and colleagues (2002) illustrated that extraverts may not perform well communicating online since it lacks the social cues that are utilized to guide their interactions with others. Yellen and colleagues (1995) show that extraverts were more inclined to elaborate on their solutions and, in FTF meetings, were more focused on general comments, which included problem definition and clarification. Further, FTF meetings provide an

outlet for the exchange of gestures and body expressions, which gives extraverts more flexibility to expand upon and argue their proposed solutions.

Hypothesis 4: Extraversion in team members will moderate the relationship between FTF communication and individual satisfaction with the team, such that when a team member's extraversion is high, the positive relationship between FTF communication and individual satisfaction with the team is stronger.

Hypothesis 5: Extraversion in team members will moderate the relationship between online communication and individual satisfaction with the team, such that when a team member's extraversion is high, the positive relationship between online communication and individual satisfaction with the team is weaker.

#### **METHOD**

## **Sample and Data Collection**

We collected data from undergraduate business students at a large public university in the southwestern United States who were engaged in team projects for a course grade. Project teams are defined as "temporary entities that execute specialized time-constrained tasks and then disband" (Kozlowski & Bell, 2003, p. 336). Student teams embody this definition (e.g., Bergman, et al., 2014). They are temporary (only meeting for one semester), have time-constrained tasks (typically 12-15 weeks to complete a project, with aspects due at different times), and then disband (at the conclusion of the semester or when the project is completed, whichever is first).

Since we wanted to capture the natural behavior of teams regarding the two communication methods, teams were not divided into "online" or "face-to-face" teams. Furthermore, we presumed that teams would use both mediums, which would result with team members gravitating toward either more online or FTF communication.

After agreeing to participate, students were given an online survey. A total of 214 students participated in the study, of which 188 students completed the entire survey. We removed 7 surveys due to the participants completing the survey in less than 5 minutes, for a final sample size of 181 participants. Our sample consisted of 58% male participants, with an age range of 19-46 and ethnicities consisting of 54.7% Caucasian, 17.1% Hispanic, 16% African-American, 8.3% Asian, and 3.9% other.

#### Measures

All items were measured on a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree).

### Online Communication

We measured online communication method by use of a newly developed four-item scale to include all possible online communication methods that are available to students. These include social media, email, and instructor-provided mediums such as Blackboard or Wiki. In an exploratory factor analysis (EFA), two items related to social media loaded on one factor while the other two items related to email and instructor-provided mediums loaded on a different factor. However, we treat our construct as formative since we used different communication methods to form an "online communication method" construct. These items do not share a common theme and therefore are not interchangeable (Jarvis, Mackenzie, & Padsakoff, 2003; Rossiter, 2002). Social media, email, and instructor-provided medium items are different in terms of usage, but we are certain that they all pertain to online communication. Relating to participants' responses, students perceived social media as a separate domain of online communication method and responded accordingly; thus, we used the two items which referred to email and instructor-provided mediums ("My team used email frequently [at least once per week] to discuss aspects of our project" and "My team used an instructor-provided medium [such as Wiki or Blackboard] to work on our project"). The Cronbach's alpha for these items was 0.946.

## Face-to-Face Communication

Similar to the online communication method, we developed a three-item scale to measures FTF communication method. Although all three items loaded on a single factor in confirmatory analysis, we consider our FTF communication method as a formative construct. A sample item is "My team met frequently [at least once per week] to work on our project." The Cronbach's alpha was 0.725.

#### Extraversion

We adapted eight items from Tiwari, Singh, and Singh (2009) to measure extraversion. A sample item is "I am a talkative person." The Cronbach's alpha was 0.898.

## Individual Satisfaction with the Team

To fit this study, we adapted four items for individual satisfaction with the team from Peeters, et al., (2006). A sample item is "Taken as a whole, I am satisfied with the team." The Cronbach's alpha was 0.907.

#### **Controls**

We used three control variables: age, gender, and ethnicity. According to Herzog and Rogers (1981), older individuals are typically more satisfied with their overall life in terms of family, friends, job, and global wellbeing. Additionally, studies have shown that younger individuals prefer online communication than do older individuals (Thayer & Ray, 2006). Since the ages of participants ranged from 19 to 46, we controlled for age. Additionally, we controlled for gender since prior research suggests that women are more inclined to online communication (Weiser, 2000). Finally, we controlled for ethnicity, since people with different cultures may have an inclination to different communication methods (Winner, 1983).

## **RESULTS**

In order to test our hypotheses, we used regression analysis to test the direct and moderating relationship between our variables. Table 1 displays the descriptive statistics and correlations. Due to the moderation analyses, we centered the independent and moderator variables. The maximum VIF is less than 3; thus, multicollinearity is not a severe problem that would hinder the interpretation of the regression analysis (Neter, Wasserman, & Kutner, 1983).

TABLE 1
OVERALL DESCRIPTIVE STATISTICS AND CORRELATIONS

Variable	Mean	S.D.	1	2	3	4	5	6
1. Face-to-Face Communication	4.15	0.74	-					
2. Online Communication	2.26	1.51	0.13	_				
3. Extraversion	3.75	0.78	0.15*	0.07	-			
4. Individual Satisfaction with Team	3.89	0.95	0.50**	0.12	0.60	-		
5. Age	24.2	4.60	-0.08	-0.16*	0.05	-0.03	-	
6. Gender	0.58	0.50	-0.17*	0.06	-0.06	0.05	0.11	-
7. Ethnicity	0.55	0.50	0.00	-0.16*	0.03	0.03	0.13	0.17*

N = 181, \*p < 0.05, \*\*p < 0.01

The results of the regression analysis are displayed in Table 2. As shown in Model 1 of Table 2, FTF communication was found to be significantly related to individual satisfaction with the team ( $\beta = 0.516$ , p < 0.05), which supports Hypothesis 1. Online communication ( $\beta$  = 0.046, ns) and extraversion ( $\beta$  = -0.013, ns) were not significantly related to individual satisfaction with the team, thus not supporting Hypotheses 2 and 3. In exploring the moderating relationship of extraversion, we included the interaction variables in Model 2 as shown in Table 2. Both FTF and extraversion ( $\beta = -0.011$ , ns) and online and extraversion ( $\beta = -0.066$ , ns) were found to be insignificant, thus not supporting Hypotheses 4 and 5.

**TABLE 2** RESULTS FOR COMMUNICATION METHOD AND EXTRAVERSION ON INDIVIDUAL SATISFACTION WITH THE TEAM

	Model 1	Model 2
Age	-0.001	-0.006
Gender	0.049*	0.136*
Ethnicity	0.016	0.016
Face-to-Face Communication	0.516*	0.526*
Online Communication	0.046	0.058
Extraversion	-0.013	-0.19
Face-to-Face X Extraversion	-	-0.011
Online X Extraversion	-	-0.066
R Square	0.268	0.272
Adjusted R Square	0.243	0.239

Standardized coefficients shown. N = 181, p < 0.05

**TABLE 3** POST-HOC ANALYSIS RESULTS

-0.067		
0.140		
0.007		
0.517*		
0.046		
-0.050		
0.053		
-0.075		
-0.184*		
-0.094		
0.058		
-0.022		
0.304		
0.255		

Standardized coefficients shown. N = 181, p < 0.05

## **POST-HOC ANALYSIS**

Since the correlation and regression results (see Tables 1 and 2) indicated that gender and age may play a role in individual satisfaction with the team, we decided to conduct a post-hoc analysis to explore these relationships. The results of this analysis are shown in Table 3. The only significant interaction was age with FTF communication on an individual's satisfaction with the team. This finding is especially interesting since it acts in a negative manner ( $\beta = -0.184$ , p < 0.05), which implies that older students were not as satisfied with the team using FTF communication. One possible explanation is that older students may have responsibilities outside of schoolwork and, therefore, did not have as much time to devote to FTF meetings with team members. Although we cannot directly infer why older students may have had insufficient time to devote to FTF meetings, one possible explanation is that the university used for data collection has a large student population of non-traditional students; therefore, career and family situations may have had an influence on the amount of time these older students were able to devote to FTF meetings, resulting in insufficient relationship development with other team members. Whatever time these older students could spend in FTF meetings created a negative experience for them. Another possible explanation is that the dissimilarity in ages between the students may have made FTF interaction more uncomfortable for the older students.

#### DISCUSSION AND IMPLICATIONS

Overall, we found interesting insights related to the role of communication method in teams related to an individual's satisfaction with the team. Additionally, we found strong support for the positive relationship between FTF communication and individual satisfaction with the team. These are addressed in more detail below.

#### **Communication Method**

We found strong support for Hypothesis 1, which states that FTF communication and individual satisfaction with the team are positively related. This implies that when teams decide to meet more in person, the individual team members are more satisfied with their team experience. Further, if these members are more satisfied, then they are more likely to engage in team activities in the future. Our results suggest that online communication method and individual satisfaction with the team are not related, which suggests that, in this particular sample, online communications methods had no influence on how satisfied a team member was with the team experience. Further research should investigate this relationship.

Based on these results, we believe that a hybrid communication method may have been in effect for our teams. Since we concluded that FTF communication was positively related to individual satisfaction with the team and that online communication had no relationship to individual satisfaction with the team, we assume that team members most likely used a combination of the two methods (FTF and online) in their team project, but were overall more satisfied with their face-to-face interaction than with their online interactions.

### **Extraversion**

Based on our analysis, we did not find any relationship between the extraversion personality trait and individual satisfaction with the team. Similar to our study, Peeters and colleagues (2006) found no significant relationship between extraversion and individual satisfaction with the team. There is a possibility that there was a major difference in the degree of extraversion among team members and highly extraverted team members influenced the satisfaction level of other team members. This assumption is consistent with Barrick and Mount (1991) that stated that extraverts not only influence other team member's performance, but also promote the team's performance by facilitating positive results.

Our results showed that the extraversion personality trait does not moderate the relationship between both FTF and online communication with individual satisfaction with the team. Topi, et al. (2002) found that extraverted people are more satisfied than introverted people regardless of the communication method (FTF or online). Our results imply that extraversion does not have a moderating effect on the communication method and an individual's satisfaction with the team. Furthermore, our findings suggest that satisfaction may not be as strongly linked to personality traits as previously believed (e.g., Chiaburu, Oh, Berry, Li, & Gardner, 2011). Lastly, our results suggest that team members should not be overly concerned about this trait of other members when focusing on their personal satisfaction with the team.

## **Limitations and Future Research**

This study has a few limitations. Our study is based in a university setting with students, collected at a single time-point which can result in generalizability issues. Although student teams do illustrate a project team, the same results may not transfer to an organizational setting. We did not control for the initial organization of the team. It is possible that a self-selected team would have higher satisfaction than a team that was organized by the instructor.

Despite these limitations, there are several future opportunities. First, the hybrid communication method warrants further investigation, as there is limited research in the area (Dixon & Panteli, 2010). Further, the examination of how the use of videoconferencing mediums (i.e., Skype) in a team setting could influence individual satisfaction with the team is another area. Since more companies are moving to videoconferencing, the individual satisfaction with the team utilizing videoconferencing mediums is warranted to maintain individual's engagement with the team. Moreover, an experiment to replicate this study would provide additional insight into these relationships and could contribute to the teaching literature. The potential influence of age on communication method, as suggested in the post-hoc analysis, warrants further exploration.

## **CONCLUSION**

Our study examined how different communication methods (face-to-face and online) affect an individual's satisfaction with the team and explore extraversion as a moderator. Our results provided insight into this relationship. First, we suggest that FTF communication and individual satisfaction with the team have a positive relationship, thus indicating that team members are more satisfied when meeting face-to-face to complete team projects. We also found that the online communication method and individual satisfaction with the team do not have a significant relationship. Our post-hoc analysis also suggests that age may play a role regarding communication method on an individual's satisfaction with the team. Lastly, our study suggests that there is no relationship between extraversion on the relationship between communication method and individual satisfaction with the team.

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